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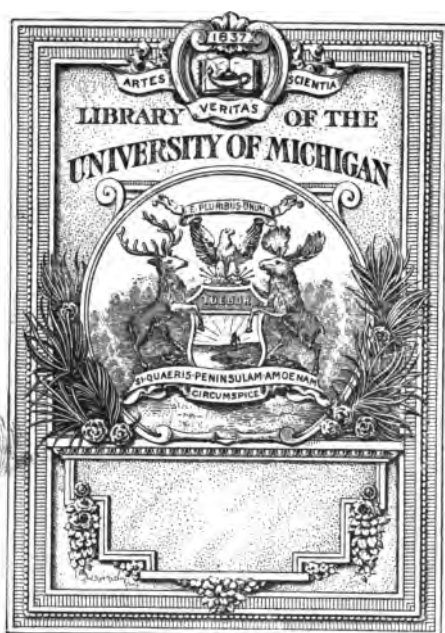
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# TWENTY-FOURTH ANNUAL REPORT

OF THE

INDIANA

=

STATE BOARD OF AGRICULTURE,

1874,

Including the Proceedings of the Annual Meeting, 1875.

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PART II.

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VOLUME XVI.

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INDIANAPOLIS:

SENTINEL COMPANY, PRINTERS AND BINDERS.

1875.





# OFFICERS OF THE INDIANA STATE BOARD OF AGRICULTURE.

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## PRESIDENT.

HON. JOHN SUTHERLAND.

## VICE-PRESIDENT.

HON. WM. CRIM.

## TREASURER.

CARLOS DICKSON.

## GENERAL SUPERINTENDENT.

E. J. HOWLAND.

## SECRETARY.

ALEX. HERON, Office, State House.

## ASSISTANT SECRETARY.

EMMET L. ROSE.

---

## EXECUTIVE COMMITTEE.

HON. JOHN SUTHERLAND, President *ex officio*.

A. B. CLAYPOOL.

H. CALDWELL.

JACOB MUTZ.

L. A. BURKE.

---

## MEMBERS OF THE STATE BOARD OF AGRICULTURE.

- 1st District—L. A. BURKE, New Harmony, Posey county.
- 2d District—HON. J. D. WILLIAMS, Wheatland, Knox county.
- 3d District—HON. F. C. JOHNSON, New Albany, Floyd county.
- 4th District—W. B. SEWARD, Bloomington, Monroe county.
- 5th District—J. B. GERARD, Aurora, Dearborn county.
- 6th District—T. V. MITCHELL, New Salem, Rush county.
- 7th District—HON. JACOB MUTZ, Edinburg, Johnson county.
- 8th District—HON. THOS. DOWLING, Terre Haute, Vigo county.
- 9th District—HON. W. H. RAGAN, Clayton, Hendricks county.
- 10th District—A. B. CLAYPOOL, Connersville, Fayette county.
- 11th District—HON. WM. CRIM, Anderson, Madison county.
- 12th District—HON. H. T. SAMPLE, Lafayette, Tippecanoe county.
- 13th District—H. CALDWELL, Wabash, Wabash county.
- 14th District—HON. S. DAVIDSON, Rochester, Fulton county.
- 15th District—JOHN SUTHERLAND, Laporte, Laporte county.
- 16th District—HON. R. M. LOCKHART, Waterloo, DeKalb county.

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AGRICULTURAL ROOMS, STATE HOUSE,  
JANUARY, 1875.

*To the Governor :*

I have the honor to submit herewith the report of the transactions of the Indiana State Board of Agriculture for the past year, together with the annual statements as condensed from the reports of the Secretaries of the County and District Agricultural Societies within the State. Also, statistical and valuable information to the agricultural community, and such other interesting matter as is deemed worthy of preservation for future reference.

The seasons' operations of the Board has been characterized by the continued increase of the business affairs and the wonderful success in making an exhibition of all the industries of the country, and an attractive display of the rare works of nature and art.

The wisdom of the law creating the Board of Agriculture, is demonstrated by the marked improvement in all agricultural pursuits and the machinery and appliances by which they are carried on, and the grand results in opening mines of wealth throughout the State, much of which improvement, is directly traceable to, or through the agency of this organization, as is especially observant to those persons that were connected with the Association at an early day. It is also manifested by the number of agricultural societies now in existence within the State, which were created through the agency of the State Board.

During an existence of twenty-three years, the Board, (consisting of sixteen members, representing as many districts into which the State is divided for such representation), has been composed of ninety-six different persons.

Of the original sixteen corporate members of the Board appointed by the Legislature but six now survive, as will be seen by referring to the following

## LIST OF MEMBERS.

NAME.	Years of service Inclusive.	COUNTY.
°Gov. Jos. A. Wright†.....	1851-54	Marion.
Dr. Alex. C. Stevenson....	1851-54	Putnam.
Jeremiah McBride†.....	1851-52	Martin.
Roland Willard†.....	1851-52	Kosciusko.
Jacob R. Harris.....	1851-54	Switzerland.
Henry L. Ellsworth†.....	1851-52	Tippecanoe.
Jno. Ratliff.....	1851-52	Morgan.
*General Jos. Orr†.....	1851-56	LaPorte.
David P. Holloway.....	1851-54	Wayne.
Jno. B. Kelly†.....	1851-54	Warrick.
Wm. McLain†.....	1851-52	Lawrence.
Samuel Emerson†.....	1851-52	Knox.
Jno. McMahan.....	1851-52	Washington.
Thos. W. Sweeney†.....	1851-52	Allen.
Geo. Brown.....	1851-52	Shelby.
Geo. Hussey†.....	1851-52	Vigo.
Geo. K. Steel†.....	1852-53	Parke.
A. Seward†.....	1852-53	Monroe.
Geo. G. Dunn†.....	1852-53	Dearborn.
Jno. Levering.....	1853-54	Tippecanoe.
Thos. Dunham†.....	1853-54	Vigo.
Jesse Morgan.....	1853-54	Rush.
Geo. W. Lanet.....	1853-58	Decatur.
L. M. Spalding.....	1853-54	Lagrange.
Abraham Smith.....	1854-55	Knox.
Samuel Herriott†.....	1854-55	Johnson.
David F. Huffstetter.....	1854-55	Orange.
Jos. Allen†.....	1854-55	Montgomery.
I. D. G. Nelson.....	1854-57	Allen.
Jas. W. Cockrun.....	1854-55	Gibson.
A. J. Hay.....	1855-56	Clarke.
J. P. Drake†.....	1855-56	Marion.

NAME.	Years of service inclusive.	COUNTY.
J. A. Matson† .....	1855-56	Putnam.
Wm. T. Dennis.....	1855-58	Wayne.
°Geo. D. Wagner†.....	1855-60	Warren.
°Maj. Stearns Fisher.....	1855-66	Wabash.
Wm. H. Bennett†.....	1855-60	Union.
°Jas. D. Williams.....	1856-71	Knox.
Col. S. Vawter.....	1856-57	Jennings.
Wm. M. Franklin.....	1856-57	Owen.
Dr. Rufus Haymond.....	1856-57	Franklin.
Dr. R. T. Brown.....	1856-57	Montgomery.
Dr. G. B. Graff.....	1856-59	Gibson.
°Dr. A. C. Stevenson.....	1857-58	Putnam.
**Calvin Fletcher, Jr.....	1862-63	Marion.
Jas. L. Bradley.....	1857-58	Johnson.
A. Freeman.....	1858-61	Porter.
A. E. Vinton†.....	1858-59	Marion.
Thos. H. Collins.....	1858-61	Floyd.
Wm. Miller .....	1858-61	St. Joseph.
Wm. Duncan.....	1858-61	Lawrence.
David G. Rabb.....	1857-60	Ohio.
W. H. Bonner†.....	1859-60	Decatur.
Wm G Coffin.....	1859-62	Parke.
°A. D. Hamrick .....	1859-72	Putnam.
Dr. Jno. C. Helm† .....	1859-68	Delaware.
Nathan Pyeatt.....	1860-63	Warrick.
Dr. Geo. W. McConnell...	1860-69	Steuben.
D. C. Branham .....	1861-62	Jefferson.
Isaac Loder.....	1861-64	Rush.
Joseph Poole.....	1861-72	Fountain.
Jno. C. Shoemaker.....	1862-71	Perry.
Jno. F. Carr .....	1862-63	Jackson.
A. J. Holmes†.....	1862-69	Fulton.
Geo. Crawford.....	1862-63	LaPorte.
Hawley Peck.....	1862-63	Lagrange.
†† Samuel Wiley.....	1863-64	Switzerland.
W. C. Donaldson.....	1863-70	Parke.
Prof. E. T. Cox.....	1864-69	Posey.
Maj. Jno. McCrea.....	1864-69	Monroe.
J. A. Grosvenor.....	1864-67	Marion.

NAME.	Years of service inclusive.	COUNTY.
° Jno. Sutherland.....	1864-75	Laporte.
Prof. S. H. Thompson.....	1865-66	Jefferson.
D. E. Reese.....	1865-68	Dearborn.
J. M. Garr.....	1865-66	Wayne.
Benj. North.....	1867-72	Ohio.
Alex. Heron.....	1867-70	Fayette.
H. Caldwell.....	1867-76	Wabash.
Jacob Mutz.....	1868-75	Johnson.
Thos. V. Mitchell.....	1869-76	Rush.
° Wm. Crim.....	1869-76	Madison.
*L. A. Burke.....	1870-74	Posey.
Geo. A. Buskirk†.....	1870-71	Monroe.
Thos. Dowling.....	1871-74	Vigo.
A. B. Claypool.....	1871-76	Fayette.
Stephen Davidson.....	1870-75	Fulton.
I. D. G. Nelson.....	1870-73	Allen.
F. Basler†.....	1872-73	Sullivan.
F. C. Johnson.....	1872-75	Floyd.
W. B. Seward.....	1872-75	Monroe.
J. B. Gerard.....	1873-74	Dearborn.
W. H. Ragan.....	1873-76	Hendricks.
H. T. Sample.....	1873-76	Tippecanoe.
R. M. Lockhart.....	1874-75	DeKalb.
*J. D. Williams.....	1874-	Knox.
Robt. Mitchell.....	1875-	Gibson.
J. V. Milhous.....	1875-76	Jennings.
Thos. Nelson.....	1875-76	Parke.
R. P. Haynes.....	1875-	Daviess.

\*Resigned before terms expired.

\*\*Elected before in 1857, but resigned and David G. Rabb appointed in his place.

†\*Resigned in 1857 and Wm. Miller elected in his place.

††Died, and Prof. S. H. Thompson appointed to fill vacancy.

°Members that have been president.

Deceased.†

## STATE FAIRS.

YEAR.	PRESIDENT.	SECRETARY.	PLACE OF FAIR.	RECEIPTS.
1852	Gov. J. A. Wright.	Jno. B. Dillon .....	Indianapolis	\$4,651 55
1853	Gov. J. A. Wright.	Jno. B. Dillon .....	Lafayette.....	6,751 00
1854	Gov. J. A. Wright.	Wm. T. Dennis.....	Madison .....	7,430 77
1855	Gen. Jos. Orr.....	Jno. B. Dillon.....	Indianapolis	10,823 75
1856	Dr. A. C. Stevenson	Ignatius Brown.....	Indianapolis	14,373 34
1857	Dr. A. C. Stevenson	Ignatius Brown.....	Indianapolis	14,058 75
1858	Dr. A. C. Stevenson	Jno. B. Dillon.....	Indianapolis	11,500 00
1859	G. D. Wagner.....	Jno. B. Dillon.....	New Albany	8,599 50
1860	G. D. Wagner.....	Wm. T. Dennis.....	Indianapolis	11,902 00
1861	D. P. Holloway.....	Wm. T. Dennis.....	No Fair.....	
1862	Jas. D. Williams...	W. H. Loomis.....	Indianapolis	4,124 08
1863	A. D. Hamrick .....	W. H. Loomis.....	Indianapolis	9,553 82
1864	Stearns Fisher.....	W. H. Loomis.....	Indianapolis	10,785 50
1865	Stearns Fisher.....	W. H. Loomis.....	Ft. Wayne...	11,597 55
1866	Stearns Fisher.....	W. H. Loomis.....	Indianapolis	17,179 36
1867	A. D. Hamrick.....	A. J. Holmes.....	Terre Haute	17,148 05
1868	A. D. Hamrick.....	A. J. Holmes.....	Indianapolis	16,799 00
1869	A. D. Hamrick.....	A. J. Holmes.....	Indianapolis	22,345 65
1870	J. D. Williams.....	Jos. Poole.....	Indianapolis	19,155 23
1871	J. D. Williams.....	Jos. Poole.....	Indianapolis	20,549 90
1872	Jno. Sutherland....	Alex. Heron.....	Indianapolis	23,484 35
1873	Jno. Sutherland....	Alex. Heron.....	Indianapolis	52,309 10
1874	Jno. Sutherland....	Alex. Heron.....	Indianapolis	45,330 48
1875	Wm. Crim.....	Alex. Heron.....	Indianapolis	

NOTE.—The amount stated as receipts are from the actual receipts of the fair each year, appropriations and donations not included.

The organization of county and district agricultural societies throughout the State, dates back to 1852, the time of the first State fair, which marks an important period in the history of the State. The importation of improved breeds of live stock of all kinds, was stimulated by a spirit of rivalry at these annual exhibitions. The Fayette county Agricultural Society was the first to remove all limits, in competing for premiums, which course was adopted the succeeding year, (1856), by the Board, followed soon after by other State and county fairs.

This liberal arrangement was a great stimulus to the introduction of the best grades of horses, cattle, sheep and hogs, as well as improved machinery, from adjoining States, and has been the means of local agricultural societies assuming such proportions as to almost rival, in importance the parent or State societies. The annual fairs throughout the State are now considered indispensable, the growth of these favored institutions has been gradual and permanent, and the larger portion of the reports from the county and district societies for 1874, show the best and most successful fairs ever held by their respective societies.

The character of the reports received of late years, show considerable improvement, though they are not yet what they ought to be.

There are now in existence within the State twenty-one district and seventy-one county agricultural societies. Also a large number of township societies, not including the nineteen hundred granges within the State. The isolated condition of the farming community has long been the great obstacle in the way of agricultural progress. This has, in a great measure, been obviated by these annual gatherings, and seconded by the remarkable number of associations recently established by the agriculturists. We look forward to the time which is surely not far distant when agricultural organizations will take their place as first in importance among the institutions of the country.



The promotion of the agricultural interests, tends to the development of the vast resources of the State, which are but partially realized at present. Development will place Indiana as one of the first in importance among the sisterhood of States, being the most central in the Union, the soil and water unsurpassed, the timber (hard woods) the finest and most extensive on the continent, the block coal the best in the world, in almost unlimited quantities. The stone, sand, fire and potter's clay of superior qualities, and facilities for transportation unsurpassed. With these natural advantages the future is full of promise.

It is a source of regret that we have no means of ascertaining the comparative statistics to show the rapid increase in the material wealth of the State. It is hoped that this great "want" will be provided for during the present session of the General Assembly.

The labors of the agriculturist has been rewarded during the past season with average crops and good prices for farm products. The season was remarkably favorable for the prosecution of farming operations. A mild winter was followed by an early spring, with enough rain fall to supply the requisites of nature, without delaying the preparation of the soil for crops. The forwardness of the spring work was one of the noted features of the season. And up to the middle of summer, a more favorable season for vegetation is past recollection.

A drought set in during the month of August which injured the corn crop, cut the pastures short, and caused farmers to begin feeding stock at least one month earlier than usual, with the prospect of a long winter season before them, as some severe cold weather was experienced during the month of November, which was followed, very fortunately by mild weather in December.

January of 1875, opened with severe cold weather and deep snow, with the prospect of a long protracted winter.

The amount of rain fall during 1874, was, 43.60 inches; during 1873, 52.32 inches. Number of rainy days 1874, one hundred and thirty-four; number of rainy days 1873, one hundred and fifty-six. Average of thermometer 1874, 55.04 degrees; average for 1873, 52 degrees. Highest temperature during 1874, ninety-seven degrees; lowest temperature, two degrees below zero.

The corn crop from the time of planting (which ranges within the State from the tenth of April to the first of June), up to the season of earing and maturing, presented the most favorable prospect of any crop of the kind for many years past. The drought of summer setting in at that time, sadly interfering with the bright anticipations, and resulted in barely an average crop. From the statistics of the Agricultural Department at Washington, which are collected by a system of correspondence, we extract the following statements: The average yield per acre, for the corn crop, of the State during 1874, was twenty-seven bushels; for 1873, twenty-five bushels. The average price of corn in December 1874, was fifty-one cents; December 1873, forty cents; same month 1872, twenty-nine cents; in 1871, thirty-seven cents; in 1870, thirty-eight cents, and in 1869, seventy cents. "These figures indicate plainly the first and last period as years of scarcity. The present prices are lower than those of 1869, because the product is somewhat more and on account of the general reduction in values, especially since the summer of 1873."

"In this State, where the price in 1869 was nineteen cents higher than now, the yield in 1874 is four bushels more per acre than in 1869."

The average quality of 1874, compared with the year previous, is the same. An increase is reported in the acreage of eight per cent.

Number of bushels produced in the State in 1873, 67,840,000 from 2,650,000 acres. Average 40 cents per bushel=\$27,136,000.

The average yield and acreage for 1874 being greater than for 1873, will about equal the difference in price per bushel, so that the total product will be about the same in value.

The wheat crop of 1874 was of a superior quality and an increase in the yield over the year preceding, but a lower price than since 1869. For some years past there has been considerable of damaged wheat, and in consequence, inferior flour, principally caused by the grain being exposed to the wet weather after it had matured. This has been entirely avoided the past season. The drought which injured the corn crop was highly favorable to securing a good wheat crop; and to use the language of a prominent miller, "the crop of wheat of 1874 makes superior flour to any that we have had for many years." The average yield per acre in the State for 1874 is estimated at 12 bushels and 2 pounds; for 1873, at 11 bushels and 2 pounds. The price of wheat in December, 1874, averaged 94 cents; in 1873, \$1.22; in 1872, \$1.32; in 1871, \$1.26; in 1870, \$1.00; in 1869, 93 cents per bushel.

As the smallest crop of corn and the highest prices are seen in 1869 and 1874, so the largest product of wheat and the lowest prices occur in the same years. In 1873, the number of bushels of wheat produced was 20,832,000 from 1,860,000 acres; average price, \$1.22=\$25,415,040.

The average yield of rye per acre is set down at 14 bushels and 5 pounds; the price, 77 cents. Oats, 19 bushels per acre; price, 44 cents. Barley, 20 bushels and 6 pounds per acre; price, \$1.10. Buckwheat, 14 bushels per acre; price, 56 cents. Potatoes, 60 bushels per acre; price, 81 cents. Sweet potatoes, 84 bushels per acre; price, 96 cents. Leaf tobacco, 650 pounds per acre; price, 8½ cents. Hay, 1½ tons per acre; price, \$13.92. Sorghum, 89 gallons per acre; price, 53 cents.

Average area sown of winter wheat, compared with 1873, 98.; condition, 96.

Average area of winter rye sown, compared with 1873, 81.; condition, 90.

Average area of winter barley sown, compared with 1873, 95.; condition, 96.

The following is the relative percentage of Numbers and Prices of Farm Stock of Indiana in January, 1875, as compared with the returns of January, 1874:

	Number compared with that of January 1874.	Average price under one year.	Average price be- tween one and two years.	Average price be- tween two and three years.	Average price over three years.
Horses .....	102	\$27 38	\$43 31	\$60 98	\$84 35
Mules.....	101	31 79	48 88	71 34	97 77
Milch Cows...	100				26 34
Oxen and other Cattle.....	101	7 00	13 20	22 25	33 50
Sheep .....	94	1 80	2 61		
Hogs.....	89	4 34	9 30		

Included in this report will be found the total value of each kind of farm stock and principal products of the State for the years 1873 and 1874. Compiled from the State Auditor's report, as collected by the tax Assessors.

The price of hogs, the past year, has been an important feature, commanding a higher price than for many years past, (ranging from \$5.00 to \$7.30 gross weight), which more than compensated farmers for the comparative low price of wheat, which justifies the assertion that the season of 1874 has been an unusually prosperous one for the farming community.

Respectfully submitted,

ALEX. HERON,

Secretary.

---

MARCH 30th, 1875.

The publication of this volume being delayed we embrace this opportunity to give a brief statement of the result of the efforts to provide laws for collecting the annual statistics of the State, including products of every description. The difficulties of showing the condition and progress of all matters concerning the welfare of the community has been referred to, in the annual reports of the Board for several years past.

Being aware of what should be contained in a report of this nature, and what might be reasonably expected, we tried to open the way, by providing for the future a method of collecting and showing facts and comparative statements of the products, and obviate the necessity of relying upon partial and most times unsatisfactory statements.

The County Agricultural Societies are required to include in their annual reports to the Board a statement of the condition of agriculture in their respective counties, and other matters of interest. The statement has become almost stereotyped that "*We have no basis on which to form any reliable figures.*"

The State Auditor collects and compiles the statistics of products as collected by the tax Assessors, and the returns do not reach the public until almost a year after the crops are produced. Also, the collection of the statistics being *optionary* with the assessor, the returns are but partial.

The railroad officers were appealed to for information, but the business at each station being local, the larger portion of their traffic is *through freight*, and, therefore, is not of general interest to the State. Manufacturers are quite reticent about their affairs, and will not voluntarily give any details. Of seven hundred and fifty circulars sent to the manufacturers of every description within the State during the month of December, requesting information in order to present a statement of the manufacturing interests, but forty-five have responded.

The Agricultural Department at Washington is the only reliance we have for a report of the extent and condition of crops within the year. This is comparatively meagre, but is gradually improving.

The information is collected by a system of correspondence from a chief and three assistants in each county. The opinions of each are averaged, and the result reported accordingly. Of the ninety-two counties in this State fifty-five are so reported and given as the average of the *whole*. As a remedy for this imperfect system, (as applied to a single State,) a bill was prepared and presented to the Legislature of 1873, creating a *bureau* of statistics. After passing one house it was lost for want of a final reading in the Senate. The same bill again came up at the session of 1875 and was tabled. Another bill was proposed providing for the collection of agricultural statistics by the, Assessors, through the Agricultural

Department; the wealth and taxation through the Auditor of State, office; the general information, such as deaths, marriages, births, etc., through the Secretary of State's office. This also received but little encouragement. Finally a bill was prepared providing for the collection of statistics of products of all kinds, including all raw materials, by the road supervisors in their respective districts, they to report to the County Auditors by the 15th of November, and the returns to be forwarded to the State Board of Agriculture by the 10th of December of each year, and be published within the year collected.

This bill did not create any new officers, and but comparatively little expense. It met with universal favor. It was presented to the Legislature in proper form, near the close of the last session, but met the fate of the other bill, owing to an unpleasant feeling or "dead lock" existing between the Senate and House.

Thus it will be seen the great "want" has not been supplied, and for another two years we can give only partial statements of the resources of the great State of Indiana.

# FEBRUARY MEETING.

1874.

---

The Board met pursuant to adjournment January 9th, 1874, with the President, Hon. John Sutherland in the chair.

The roll was called and Messrs. Burke, Williams, Johnson, Crim, Caldwell, Claypool, Seward, Dowling, Gerard, Davidson, Mitchell, Ragan, Lockhart and Sutherland responded to their names.

The minutes of the previous meeting and of the Executive Committee meetings were read, amended and adopted. By request, the committee on the part of the guarantors, through their chairman, Judge Martindale, submitted a report of their meeting and an expression of their feelings in regard to the Exposition.

The President replied on the part of the Board.

Mr. J. D. Williams offered the following :

WHEREAS, The Board of Trade and Common Council have neglected to comply with a resolution adopted on the 9th day of January, 1874, to appoint a committee of three to act with the Executive or a similar Committee to be appointed by this Board, therefore,

*Resolved*, That a committee appointed by the guarantors of the city will be recognized by this Board as the proper representatives of the citizens of Indianapolis.

AG. R.—2

Mr. Seward offered a substitute, and the matter was discussed at length by Messrs. Williams, Martindale and Seward ; and, on motion, the matter was referred to a Select Committee with instructions to report at 2 o'clock.

The President appointed Messrs. Dowling, Mutz and Crim upon said committee.

The protest of Mr. Mankedick in relation to issuing certificates to another society organized under the name of the Marion County Agricultural Society, was referred to a committee consisting of Messrs. Mutz, Ragan and Burke, with instructions to report at 10 o'clock A. M.

A communication in regard to a revision of the Premium List was referred.

Upon the suggestion of the Secretary, a committee was appointed to award premiums that had been recommended in the non-enumerated department.

The Secretary read a statement showing the light insurance and insufficiency of water in case of fire, which was referred to the Committee on Fair Grounds.

On motion of Mr. Johnson, an appointment was made for General Lansing to deliver a speech in the interest of the Centennial Exposition at 7 o'clock P. M.

Board adjourned.

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#### AFTERNOON SESSION, 2 O'CLOCK P. M.

The Board met pursuant to adjournment. The roll was called and all members were present.

On motion, the Premium List of the State Fair was taken up.

Mr. Burke offered the following:

*Resolved*, That the State Board offer a premium of \$100 to the Agricultural Society making the best display of its field and seed crops, not to exceed one-half bushel in quantity.



Mr. Williams moved to amend by making the first premium \$60 and second premium \$30, and the resolution was adopted as amended.

On motion of Mr. Johnson, it was

*Voted*, That the rules governing the awards on field crops in Indiana do not apply to county or local organizations exhibiting in this class.

The Board suspended action on the premium list, and Mr. Dowling offered the following:

*Resolved*, That the resolution adopted on the 9th of January last, providing the manner of appointing three citizens of Indianapolis to act in conjunction with the Board in the conduct of the Exposition be, and is hereby rescinded.

Which was adopted.

Mr. Dowling offered the following:

*Resolved*, That the management of the Exposition proper for the year 1874, be and the same is hereby conferred upon a committee to consist of three members of the Board, to be appointed by the President, together with the President and three citizens of Indianapolis, appointed by the Guarantors to the Exposition fund, to-wit: H. R. Allen, E. B. Martindale and C. A. Howland. That full power and authority is hereby conferred upon said committee to take charge of all matters pertaining to said Exposition proper; and further, that said H. R. Allen, E. B. Martindale and C. A. Howland, shall each have a voice and a vote in all matters pertaining to the Exposition of 1874, the same as the members of this Board and that they shall receive the same compensation as the members of the Board.

Which was adopted.

The resolution of Mr. Burke, in regard to the county society premium, was reconsidered, and the following substitute, offered by Mr. Claypool, was adopted:

*Resolved*, That a premium of \$100 to the first and \$50 to the second be offered to the county agricultural society making the best display and variety of field, garden and orchard crops—kind, variety and quality to be considered—and that the society, or agricultural organization, competing shall notify the Secretary of the same, on or before the first day of September, next, and no variety to exceed one-half bushel in quantity.

On motion of Mr. Williams, the Committee on the part of the Guarantors were allowed a vote on all questions when present.

Mr. Davidson offered the following :

*Resolved*, By the State Board of Agriculture that the several entry books, in the Live Stock Department for 1874, should represent the same number of premiums in each department, and that the amount allotted to each book or section ought to be in accordance with the relative value that the several departments stand in the eyes of the whole people.

Which was adopted.

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#### MORNING SESSION, FEBRUARY 11th, 1874.

The Board met pursuant to adjournment.

The roll was called, all the members being present.

The minutes of the previous meeting were read, corrected and adopted.

Mr. Claypool offered the following as a substitute for a resolution previously offered by Mr. Burke :

*Resolved*, That the Secretary, Treasurer and General Superintendent, and all the superintendents of the several departments, be required to furnish a list of names of their employes, together with the amount allowed per day, at 9 o'clock A. M. each day, during the Exposition, to this Board, and, upon a failure to furnish said list, etc., they shall pay a fine of \$5 for the first offence and \$10 for the second, and each and every offence thereafter.

Adopted.

The revision of the premium list in the Poultry Department was taken up, and a new list offered by Mr. Davidson, after being amended, was substituted for the old one.

On a motion to reconsider, a resolution in regard to equalizing premiums in the Live Stock Department, offered by Mr. Davidson and adopted, was lost.

On motion of Mr. Martindale, Section 5 of the Premium List, embracing the "fast ring," was referred to a committee of five with instructions to report.

Mr. Martindale, from the committee, reported, and the report was accepted and adopted.

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AFTERNOON SESSION, 2 O'CLOCK P. M.

The Board met pursuant to adjournment; the roll was called, all the members being present.

Mr. Ragan, from the Committee on the protest offered by the Marion County Agricultural Society against a rival society of the same name, reported that the Committee were unable to decide some points of law presented by the different contestants, but as the Board had recognized as legal the delegate from each society, and admitted them to representation, would recommend that the Secretary be authorized to issue certificates to each of the societies, and that the funds be shared equally between them. The report was accepted and adopted.

The Secretary of State submitted the following communication :

INDIANAPOLIS, Feb. 11, 1874.

*To the Indiana State Board of Agriculture.*

GENTLEMEN :—Will you allow me to call your attention to the importance of establishing a State bureau of statistics, to the direct interest, the great industry you represent has therein, and to the influence you can exert in its favor by proper action. I need only remind you that the inductive philosophy which deduces to principles from a collection of facts, is the only one which gives us theories of practical value. The purpose of statistical tables is to give the largest possible basis of facts, as the foundation for correct theories. Your society is formed for the purpose of advancing the interests of the farming community, you are expected to keep them informed of the best methods of procedure, the most profitable branches of their business, the most valuable inventions

to assist their labors. But how can you do this without such a collection of facts as will enable you to compare and analyze, and so present results with accuracy. Year by year you are paying large amounts in premiums for the best and largest productions of grain, etc. But have you such tables as the result of your operations as will enable you to say with certainty whether your premium is awarded from the accident of a superior soil, or the intention of a superior cultivation. Year by year you award premiums for fast horses, but do your tables inform you as to the cost and value of such stock so that the ordinary farmer can tell whether it is, or is not, profitable to raise fast horses, and so of each special crop or production, and as with yours, so with every other branch of industry within the State.

With stone, iron, coal and timber, in great abundance, we know nothing of the capital invested, the results produced, the wages paid, nor the profits realized. We have long and heated disputes about changes of law, criminalations and strikes between capital and labor, criticisms and abuse about divorce and intemperance, but we have no collection of facts to enable us to form a correct conclusion in regard to any one of these questions. At the last Session of the General Assembly, the Secretary of State was authorized to establish in his office a bureau of statistics; but, unfortunately, the bill prepared by the Committee on statistics, to provide the material for such a bureau, failed to become a law, for want of a final vote. It must therefore remain a nominal thing until further legislation. The Indiana State Historical Society has strongly endorsed the movement, and appointed a committee to urge the passage of the necessary laws. The papers of the State generally have spoken of it with favor. And if the project meets with your approbation, I would respectfully suggest the appointment of a committee to assist in perfecting and presenting a proper bill for legislative action. It is believed that by a judicious distribution of the labor to be performed, very valuable results can be obtained at small cost. Thus, if the agricultural statistics are collected through your Society, the educational through the Superintendent of Public Instruction, the criminal through the Attorney General, those of taxation and finance through the Auditor, and the vital and mechanical through this office, but little new machinery would be required. Your attention to this important subject is respectfully solicited.

Very respectfully,

W. W. CURRY,

Secretary of State.

On motion of Col. Dowling, a committee was appointed to act upon the suggestions made by Mr. Curry.

On motion, the Board appointed 7½ o'clock, on to-morrow evening, as the time to hear General Lansing's speech in regard to the Centennial Exposition.

On motion the Fine Art Department of the premium list was referred to a select committee for revision.

Mr. Crim, from the Committee on Finance, reported in pursuance with the resolution of Mr. Dowling, in regard to the liabilities of the Board. The report was not acted upon, as Mr. Dowling held that it was not in accordance with the tenor of his resolution.

Mr. Martindale offered the following :

*Resolved*, That the Secretary and Treasurer be and are hereby instructed to furnish statements in accordance with Dowling's resolution, and report to the Executive Board.

Which was adopted.

Mr. Dowling offered the following :

*Resolved*, That the Treasurer be requested to report the names of the guarantors yet in arrears to this Board in the payment of the call of sixty per cent., and the amount due by each.

Adopted.

Mr. Crim's resolution, offered at the January meeting, in regard to the time of holding the Exposition, was taken from the table and, after being discussed, was laid over.]

Board adjourned.

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#### MORNING SESSION, February 12th, 1874.

The Board met pursuant to adjournment with the President in the chair. The roll was called and the minutes of the previous meeting read and adopted.

Mr. Ragan offered the following :

*Resolved*, That the thanks of this Board are due and are hereby tendered W. B. McKeen, President of the Terre Haute and Indianapolis Railroad,

and E. W. Woodard, President of the Indianapolis and St. Louis Railroad, for their generous and long continued favors to the members of the State Board of Agriculture.

Adopted.

The President appointed Messrs. Dowling, Williams, and Martindale as the Committee on the Communication from the Secretary of State in regard to the Statistical Bureau.

On motion of Mr. Claypool, the premiums on flowers were referred to a select committee consisting of Messrs. Curry, Allen, and Ragan.

The question of the time of holding the Exposition pending yesterday was taken up, and after amending the original resolution of Mr. Crim's, making it read to commence upon the 7th day of September and continue thirty days, it was adopted.

Mr. Caldwell offered the following :

*Resolved*, That the price of tickets for admission to the State Fair and Exposition, for the year 1874, be forty cents each.

Mr. Martindale moved to amend by including, "and half fare tickets be issued to children under twelve years," and the resolution was adopted as amended.

Mr. Claypool moved that exhibitor's tickets be sold at \$5 each.

The matter was referred to a committee consisting of Messrs. Davidson, Seward and Martindale.

Mr. Dowling offered the following :

*Resolved*, That the Treasurer, under the direction of the Finance Committee, be instructed to settle and collect the unpaid guarantee bonds, making some final disposition of the claims.

Which was adopted.

Mr. Mutz offered the following :

*Resolved*, That the sweepstakes premium on heavy draft horses, (stallions,) be raised to \$75, and that a premium of \$150 be offered for a herd

of not less than eight, one stallion and seven mares to be owned by the exhibitor and placed in the sweepstakes class.

Which was adopted.

On motion of Mr. Crim, the Treasurer was instructed to sell the \$3,000 U. S. bonds belonging to the Board, at the highest premium obtainable.

On motion of Mr. Claypool, a committee of five, consisting of Messrs. Claypool, Allen, Martindale, Howland and Sutherland, was appointed to confer with the railroads and hotels for the purpose of getting reduced rates during the Exposition.

Board adjourned.

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AFTERNOON SESSION, 2 O'CLOCK P. M.

The Board met pursuant to adjournment, the roll was called, all the members present.

Mr. Seward, from the Committee on Fair Grounds, reported as follows:

Your committee have visited the grounds, and although we were not over the entire grounds, we found many things that were not in proper order. We do not deem it necessary to submit a detailed statement of what should be done, but would rather recommend the employment of a suitable person to live upon the grounds, making the old Executive building his dwelling, and that he be required to give his whole time, under the direction of our Superintendent and the Committee on Exposition, in keeping the grounds and buildings in order.

We also recommend that the Exposition Committee see the proper authorities, and if possible, have one of the city fire cisterns placed near the Exposition buildings, and also endeavor to have a fire alarm box placed on the Exposition buildings, and that the proper officers look into the matter of insurance, and have a reasonable amount placed on the buildings belonging to the Board. We find that there are two families living

on the grounds, one of which without authority, and recommend that they be given proper notice to leave, and if they do not comply that they be ejected.

Respectfully submitted,

W. B. SEWARD, Chairman.

The report was accepted and adopted.

Mr. Martindale, from the Committee on Exhibitors tickets, reported as follows:

That Exhibitors have issued to them and their help, coupon tickets, which shall contain the name of the exhibitor plainly written, and be numbered to correspond with his entry number. It shall be marked in the margin with ten spots, each spot containing the figure "20" and shall represent twenty cents. One of said spots shall be punched by the Gate Keeper each time a holder is admitted under it, and when the last spot is punched the ticket shall be taken up. Such tickets will be sold by the Treasurer to Exhibitors only for *Two Dollars* per ticket. Any one, not an Exhibitor or help of an Exhibitor, attempting to use such ticket, the same shall be taken up and forfeited by the holder, and this rule shall be printed upon the ticket. The Treasurer shall keep an account of the number of such tickets sold, stating the number and to whom sold.

2. That Badges shall be prepared by the President and delivered to the officers, directors, employes, policemen, and to the newspaper reporters. That the holder of such Badge shall be passed by the Gate Keeper if said Badge is presented to view. The President shall keep an account of such Badges and the names of persons to whom delivered. Such Badges shall be forfeited if found in possession of any one not an owner of the same.

Respectfully submitted,

E. B. MARTINDALE,

Chairman.

The report was accepted and adopted.

On motion, the Executive Committee and the Select Committee on Exposition, conjointly composed the Printing Committee.

The rules and regulations pertaining to the Exposition were referred to the Select Committee on Exposition.



The rules and regulations governing the Fair were taken up and, after some changes in dates, etc., were adopted as last year.

On motion of Mr. Claypool, it was

*Resolved*, That the classes in the Hog Department be placed upon an equality as to the number and amount of premiums.

Mr. Curry, from the Select Committee on Floral list, reported, which report was accepted and adopted.

The Committee on Fine Art premium list reported, which report was accepted and adopted.

Mr. Ragan offered the following:

*Resolved*, That our Secretary be instructed to prepare a list of the awards made at our next Exposition and Fair, for immediate publication, and not encumber the Annual Report with such matter.

Which was adopted.

Mr. Williams offered the following:

*Resolved* That the special Committee on Railroads be authorized to solicit special premiums from the citizens of Indianapolis on articles exhibited at the next Exposition.

Which was adopted.

Mr. Williams offered the following:

*Resolved*, That all agricultural products and stock must be entered on or before Tuesday the 29th day of September.

Which was adopted.

A section on coal, etc., was added to the premium list.

On motion of Mr. Seward it was

*Voted*, That the Treasurer be required to furnish the Board each day with the cash receipts of the day previous during the time of the Exposition and Fair.

The Committee on Non-Enumerated Awards for 1873 reported, recommending the award of seventy-one diplomas and two silver medals in this department.

The report was accepted and adopted.

Three hundred dollars was placed at the disposal of the General Superintendent to be applied on the Fair Grounds.

The President appointed Messrs. Crim, Caldwell, and Seward as the committee to act in conjunction with the committee appointed by the guarantors.

The sale of refreshment stands was left to the Executive Board.

On motion of Mr. Davidson the Board adjourned to the 8th day of September, 1874.

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### EXECUTIVE BOARD MEETING.

Pursuant to the call of the President the Executive Board appointed at the last meeting met in the State House. There were present Messrs. Sutherland, Crim, Caldwell, Seward, Martindale, Allen, and Howland.

On motion it was

*Voted*, That Messrs. Martindale, Allen, and Howland, with the aid of the Secretary of the Board, prepare the premium list for 1874, and submit the same, with bids, for advertising and cost of printing twenty thousand copies, at the next meeting of the Executive Board. That they revise the rules for the government of the next exhibition, and submit such revision for the approval of the Board.

It was

*Ordered*, That the Executive Committee of the State Board be notified to meet with the Executive Board on the 4th of March next.

Adjourned.

## MARCH MEETING.

MARCH 4th, 1874.

The Executive Committee and the Executive Board met in joint meeting pursuant to the call of the President.

There were present Messrs. Sutherland, Claypool, Crim, Caldwell, Seward, Burke, Martindale and Allen.

Mr. Ragan submitted a programme for the Horticultural Department, which was adopted.

The bids for the printing of the premium list were opened.

The Superintendent reported progress since the last meeting.

The Free Masons were tendered the use of the Exposition buildings, to hold a grand parade, under the provisions set forth in a communication presented by them.

A committee of five was appointed on a communication recommending premiums on collections in the several sections.

Messrs. Allen and Martindale were instructed to prepare and close a contract with Braden & Burford to do the printing on the premium list.

Mr. Claypool offered the following :

*Resolved*, That there be appropriated a sum, not to exceed \$2,000. to be expended for advertising in the weekly newspapers of Indiana during the Exposition season of 1874, and that this amount be distributed equally among them, the basis of computation being the bona fide circulation of the newspapers patronized. The resolution was laid over.

The Committee on Collections reported, and the report was accepted and adopted.

Mr. Claypool tendered his resignation as Superintendent of the Cattle Department, which was accepted.

Mr. Mutz tendered his resignation as Superintendent of the Fine Art Department, which was accepted,

And the President appointed A. B. Claypool as Superintendent of the Fine Art Department, and Jacob Mutz as Superintendent of the Cattle Department.

Cuts of the Agricultural College, Marion County Court House, Hospital for the Insane, and the Indiana State University, were ordered to be inserted in the premium list.

Mr. Martindale offered the following as a substitute for Mr. Claypool's resolution :

*Resolved*, That the Secretary is hereby authorized to have a cut of the Exposition made and stereotyped, in size, to go into a single column of a newspaper, and that he obtain the names of all the weekly papers published in the State, with the amount of circulation of each paper; that the committee will advertise in each of such papers to such an amount as may hereafter be determined upon. The price paid to each shall be regulated by the actual circulation of the paper. The Secretary is directed to get not more than two hundred electrotypes, and that he take not less than three bids for said electrotyping, and contract with the lowest bidder for the same. That the Secretary prepare a circular letter to each of such papers, and insert the amount to which the paper addressed would be entitled for inserting the electrotype, and such advertising matter as may accompany the same, from the date named until the close of the Exposition of 1874, and the Secretary shall, under the direction of the President and two members of this committee, send out said circulars and electrotypes, with the prices named, and the papers inserting such advertisement, and sending their papers marked to the Secretary, shall be paid the prices named to them in the circular.

This substitute was adopted.

Mr. Burke offered the following :

*Resolved*, That the President and Secretary give to R. M. Lockhart a certificate, under their hands and the seal of the State Board, authorizing him to act as advertising agent of the Fair and Exposition of 1874.

Adopted.

Mr. Crim moved that all the printing be referred to the same committee as that provided for in the resolution on

weekly newspapers. The one consisting of the President and two members.

Carried.

Mr. Burke offered the following:

*Resolved*, That the Printing Committee have printed one hundred complimentary tickets to reciprocate the courtesies accepted by this Board.

Adopted.

On motion the Committee adjourned.

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## MAY MEETING.

MAY 6th, 1874.

The Board met pursuant to the call of the President. Present—Messrs. H. Caldwell, W. B. Seward, Wm. Crim, E. B. Martindale, and H. R. Allen. On motion of Judge Martindale, Mr. Crim was made chairman of the meeting, President Sutherland being absent. Mr. Martindale offered the following:

*Resolved*, That Dr. H. R. Allen is hereby authorized to contract with competent parties to establish a green house on the exposition grounds, at the point between the floral hall and the south line of the grounds, extending east as far as the agricultural hall, the same to be made free of rent, provided it is established at once, and so arranged that a satisfactory display can be made at the exposition of 1874, the contract to be for five years, subject to the approval of the Board of Agriculture, the grounds and house to be kept open without charge during the exposition, connecting with the floral hall; the lease to be so drawn that the contract shall terminate with the termination of the occupancy of grounds for the State Fair.

The resolution was adopted.

A communication from the Secretary of the Labor Reform Convention was read, asking the use of the building in which to hold their Convention.

On motion, the request was granted.

Mr. Crim was elected delegate to the National Agricultural Congress, to meet at Atlanta, Ga., on the 13th inst., as a representative of the Indiana State Board of Agriculture.

On motion of Dr. Allen, the sale of booths, refreshment stands and space for shows, exhibitions, etc., was placed in the hands of Messrs. Seward and Caldwell.

A proposition from the Journal Company to insert the large cut of the exposition and grounds in an issue of 100,000 copies of their paper, with two full pages of exposition matter, including the cut, and the whole issue to be distributed free of cost to the Board for \$150, was accepted.

On motion Messrs. Seward, Allen and Martindale were appointed on music.

On motion of Judge Martindale, the following resolution was adopted :

*Resolved*, That the committee this day employ E. C. Tuttle to devote his full time to the interest of the State Fair and Exposition, under the direction of the Exposition Committee, at a salary and compensation of forty dollars per week. The said Tuttle is also authorized and directed to issue an Exposition monthly, to be published for four months, the first issue to be on the first day of June and the last on the first day of September, each issue to be not less than 10,000 copies; provided the expense of publishing can be paid by advertising in the same. The said Tuttle shall also act as special superintendent of the Exposition, and in conjunction with Dr. H. R. Allen and William Crim, shall constitute the Committee on Space, and shall devote such time as he may be able to spare from his other duties, in filling up the several departments of the Exposition.

Mr. Caldwell offered the following:

*Resolved*, That this Board fully appreciate the interest manifested by the Manufacturers and Real Estate Exchange of Indianapolis in the approaching State Fair and Exposition in offering \$750 special premiums, and by Mr. H. L. Benham for his generous offer; and that we extend a

warm welcome to the committee appointed by that energetic body, and to all citizens of Indianapolis and the State who feel disposed to aid in making the Exposition of 1874 in all respects successful.

Adopted unanimously.

Mr. Burke tendered his resignation as a member of the State Board, giving as his reasons that he was not a resident of the district which he was chosen to represent.

Which was laid on the table.

There being no further business the Board adjourned, to meet on call of the President.

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## EXPOSITION MEETINGS

FROM SEPTEMBER 7TH, TO OCTOBER 7TH.

The Board met pursuant to adjournment at the February meeting, and was called to order by the President. Regular meetings were held at 8 A. M., 2 P. M., and occasionally at 9 P. M. during the Exposition.

The substance of their proceedings is given below in a condensed form.

The question of the price of admission to the Exposition and Fair, came up. Mr. Ragan, in a resolution, declined to ratify the action of the Executive Board in fixing the prices of admission at twenty-five cents for the first three weeks and fifty cents for the last week, stating, in his resolution, that, in his opinion, it would result injuriously to the Fair and Exposition, and favored a reduction to twenty-five cents during the whole time. Mr. Johnson introduced a resolution endorsing the first action of the Board, placing the fee at forty cents during the whole time. After much

discussion the resolution of Mr. Ragan, placing the admission at twenty-five cents, was taken up, and, upon a call for the ayes and noes, was passed, twelve voting for, and one against its adoption.

*Voted*, That exhibitors be admitted free the first week, and tickets at one dollar, admitting ten times, be sold to them thereafter.

Mr. Crim and the Secretary were instructed to secure \$25,000 additional insurance on the buildings and \$10,000 on pictures.

The President and the Committee on Entertainment were instructed to provide a suitable reception to the Mayor of Cincinnati on his visiting the Exposition, and to invite the Mayor, Common Council, Police, and Fire Department of the city to participate.

The old dining hall was assigned to agricultural implements, and the hall before occupied by them assigned to agricultural products.

*Voted*, That products competing in society collections can not compete in individual collections.

*Voted*, That the matter of privileges at the gates be referred to the Committee on Privileges.

A communication was read from Hon. H. T. Sample, protesting against maintaining a dancing hall under the supervision of the Board.

Mr. Guffin, from the Real Estate Exchange, stated that the Street Railway Company had no right to charge to exceed five cents for each passenger to any part of the city.

A committee was appointed to wait upon Mr. Halford and learn what is being done in his department.

*Voted*, That, any regularly organized county or local society, for the promotion of agriculture, whose territory does not embrace but one county, will be allowed to compete for the society collection premiums.

A communication was received from Ex-Gov. Bigler of Penn., read, and filed.

An invitation was extended President Grant, and Gen.



Sherman to visit the Exposition while on their western tour.

Three hundred dollars was appropriated to the Indianapolis Boot & Shoe Manufacturing Company, on account of their display, according to a contract with members of the Executive Board.

The Secretary was instructed to prepare a complete statement showing the current expenses of the Exposition, for the information of the Board.

At the suggestion of Prof. Cox, it was

*Resolved*, That we most cordially invite Gen. A. T. Goshorn, of the United States Centennial Exposition, and the President and Managers of the Cincinnati Exposition to meet the United States Commissioners of the Centennial Exposition on the 24th inst., and witness the unveiling of the painting known as the "*Great Republic*" and other interesting ceremonies, at the Indiana State Exposition at Indianapolis.

Committees were appointed to act in conjunction with similar committees from the city to wait upon and receive the Centennial Commission.

Mr. Crim reported additional Insurance, in reliable companies, at favorable rates.

The Secretary in compliance with an order of the Board reported, showing the current daily expenses, as near as could be ascertained, to be \$259.57.

The members of the Executive Board were instructed to report the names and wages of men employed by them at the next meeting of the Board.

The Committee to whom was referred the matter of the violation of contracts by lessees reported progress, and were instructed to prosecute the matter vigorously.

Wednesday the 23d inst., was set apart as Children's Day, and all school children under ten years of age were admitted free, and over ten years at ten cents each, to apply to all excursions of schools during the Exposition.

A Committee reported a purse of \$75 on a "*Green Pace*."

A suitable device of welcome to the Ex-Governors of Pennsylvania was ordered to be placed at the main entrance of the Exposition Building.

A purse of \$100 was offered on a "*Green Trot*" for Saturday.

The General Superintendent was instructed to provide feed for stock exhibitors on such terms as would protect the Board from any expense.

The trouble with Childs was compromised by the Board paying back \$125 of the \$250 paid by Childs, he to surrender the stand to the Board, and all suits instituted against the Board to be withdrawn.

*Voted*, That the Exposition close Thursday, October 8<sup>th</sup>, 1874.

A vote of thanks was tendered General Meredith for the interest shown in securing the stock of Beattie & Miller, of White Vale, Ontario, Canada, for exhibition at the Fair.

The carriage men were allowed to select their own committee on award of premiums upon their manufactures.

*Voted*, That each committeeman secure a certificate from the Department Superintendent under which he serves, and the member appointing him shall draw for him his pay.

*Ordered*, That the roll be called precisely at the hour the Board adjourned to meet.

*Voted*, That competing exhibitors be permitted to select committees on award if they can unanimously agree to acquiesce in their decisions.

A vote of thanks was tendered Heinel Bros., of Terre Haute, for their gratuitous display of cut flowers, in Floral Hall, and they were awarded a gold medal by the Board.

A protest was entered by J. A. Gosnell, against admitting Bay Harry in the three minute race on the 29<sup>th</sup>, on account of his having a record of less than three minutes.

A communication was received and read from the Secretary of the Chicago Exposition, inviting the members of the Board to visit their Exposition.

Stock entered for exhibition at the St. Louis Fair were allowed to withdraw from the grounds.

Protests were entered by English & Over, on Harrows; by M. & J. Rumely, on Portable Engines, and by Hamlin & Armstrong, on Drugs and Chemicals.

A protest was entered against the award of premiums to Jno. Marvel, an exhibitor in the Agricultural Department, for conduct unbecoming a gentleman and an exhibitor.

Referred to a committee.

The Treasurer was ordered to pay orders for premiums where no protest has been entered and filed with the Secretary.

The charges against John Marvel, made a special order, were taken up, and after examining witnesses in the case, the charges against him being sustained, the premiums awarded to him on Corn, Tomatoes and General Collection of Farm Products, were withheld, and he was forever debarred from again exhibiting at the Indiana State Fair.

Protests were entered by Carpenter Brothers on collection of statuary; by Johnston Brothers on soft coal burners; by Bowen, Stewart & Co. on books and stationery; by H. S. Bigham on scales; by Southard & Koerner on pen drawing; and by W. A. & L. N. Patterson on assortment of surgical instruments.

A resolution was adopted complimenting Mayhew & Kersting on their patent soft coal burner.

Messrs. Dowling, Claypool and Seward were appointed upon a committee to examine and report upon articles upon which no premiums were offered.

The General Superintendent reported, showing receipts in his department to be \$286.25; and disbursements, \$319.32.

A vote of thanks was tendered M. & J. Rumely for power furnished to run the reapers, mowers and threshers.

Messrs. Lewis, Stone and Reiman were authorized to make certain changes and improvements in the green house and in Floral Hall, to add to its attractions.

The committee on the protest in the thorough-bred stallion ring reported that they had examined the pedigrees

furnished by the different contestants, and were of the opinion that there were no *thorough-breds* shown, and would recommend the premiums be withheld.

A vote of thanks was tendered C. Schrader for his very fine and varied collection of birds on exhibition.

A vote of thanks was tendered his Honor, Mayor Mitchell, and the members of the city police force, for their efficiency and kindness, manifested during the progress of the Fair and Exposition.

The Committee on Privileges reported, showing the aggregate sales to have been \$5,464.

The Secretary was instructed to draw upon the Treasurer for the amount required, for the reshipment of pictures to their owners.

On motion the Board adjourned to meet Nov. 4th, 1874.

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## NOVEMBER MEETING.

NOVEMBER 4th, 1874.

The Board met pursuant to adjournment, with Vice President Crim in the chair.

There were present Messrs. Crim, Caldwell, Claypool, Dowling, Mutz, Davidson, Seward, Ragan, Gerard, Mitchell, Sample, Martindale, and Allen.

Mr. Dowling offered the following :

WHEREAS, The death of the wife of the Hon. John Sutherland, President of this Board, has been announced by telegraph, and he, a brother member, has been sorely stricken with grief by the decease of the partner of his joys and sorrows. Be it

*Resolved*, That we tender to him our sincere and heartfelt sympathies in this the hour of his trouble and bereavement, and as a mark of respect and esteem, request the attendance of as many members of this Board as can attend the last sad rites. And be it further

*Resolved*, That a committee consisting of H. Caldwell, H. T. Sample, and Alexander Heron, be appointed to attend the funeral, and accompany the remains to their last resting place, and communicate to him the feelings of this Board as expressed in these resolutions, and that this Board adjourn to meet upon the 18th day of November, 1874, at 10 o'clock A. M.

Which was adopted, and the Board adjourned.

NOVEMBER 18th, 1874.

The Board met and was called to order by the President. Present, Messrs. Johnson, Williams, Seward, Gerard, Mitchell, Mutz, Dowling, Ragan, Claypool, Crim, Sample, Caldwell, Davidson, Martindale and Sutherland.

J. J. Palmer presented his bill for services, which, after much discussion, was finally allowed.

Resolutions were offered in reference to a plan, or basis, of settlement between the State Board of Agriculture and the Guarantors, and laid upon the table.

The Secretary submitted the following report, it being a statement of the financial operations of the Indiana State Board of Agriculture in connection with the Exposition and Fair, for 1874.

RECEIPTS FROM EXPOSITION AND FAIR.

October 10th—

From sale of admission tickets.....	\$29,840 75
From sale of railroad coupon tickets	6,538 75
From sale of exhibitors' tickets. ....	978 00
From sale of amphitheater ticket...	1,176 50
From sale of music hall tickets.....	50 50
From sale of privileges .....	4,904 48
From entry fees .....	1,041 00
From rent new improvements.....	800 50

Total .....\$45,330 48

## DISBURSEMENTS.

General expense .....	\$12,184 44	
Running expense.....	12,769 16	
Premiums.....	10,754 00	
		<hr/>
Total .....	\$35,707 60	
Improvements.....	9,708 04	
		<hr/>
Total .....	\$45,415 64	
Receipts.....	45,330 48	
		<hr/>
Amount short in season's operations	\$85 16	
To which add interest on coupon bonds	4,000 00	
		<hr/>
	\$4,085 16	
Referred claims to the amount of.....	\$795 00	
		<hr/>
The receipts for first week.....	\$2,868 05	
Second week.....	6,232 85	
Third week.....	5,986 90	
Fourth week.....	21,917 65	
Three days.....	1,457 70	
		<hr/>
Total .....	\$38,463 15	

Respectfully submitted,

ALEX. HERON.

Secretary.

The report was accepted and adopted.

AFTERNOON SESSION.

Mr. Martindale offered the following :

*Resolved*, That the Finance Committee of the State Board of Agriculture be and are hereby authorized and directed to settle with the signers to the guarantee fund on the following terms, to wit:

1. Any of the signers to the said fund who have paid, or will pay, sixty cents to the dollar on their subscriptions, and will release the State Board from any liability on account of the same, shall be released and discharged from any further payment on account of said subscription.

2. That any of said subscribers who have paid more than sixty cents to the dollar on their said subscription shall have said excess over sixty cents to the dollar returned to them by their executing such release of the State Board from any liability on account of said subscription.

3. That any of said subscribers who for thirty days after notice fail to avail themselves of the foregoing provision shall be required to pay the ninety cents to the dollar of their subscriptions, and said committee are instructed to close up said guarantee fund on the foregoing basis and to execute to any of said guarantors who choose to pay said ninety cents, the obligation of this Board, according to the terms of the contract between the guarantors and this Board. That said committee are directed to collect by suit from any of said guarantors who refuse to make settlement on any basis of their subscription.

Mr. Dowling introduced, as a substitute the following :

WHEREAS, The Secretary's report just read, showing a small deficit in the receipts over expenditures for the Fair and Exposition of 1874 admonishes the members of this Board that the unpaid balances of the guarantee fund should be collected, and the same applied to liquidate the debt created for the "building and improvements" in 1873.

*Be it Resolved*, That the President and Executive Committee, in conjunction with the Treasurer, be directed to proceed with the collection of the guarantee notes unpaid, and that all moneys so collected shall be applied to the payment of the bonds issued by this Board in anticipating the collection of the guarantee notes.

The substitute was lost by the following vote:

Noes—Seward, Mitchell, Ragan, Claypool, Crim, Caldwell, Martindale, and Sutherland—8.

Yeas—Dowling, Williams, Gerard, Sample, Johnson, Mutz and Davidson—7.

Mr. Williams then introduced the following as a substitute to Mr. Martindale's resolution.

*Resolved*, That the State Board agree to release the guarantors from all obligations upon the payment in full of \$60,000, provided the guarantors will give a release in full to the Board, releasing the Board from holding any exposition on said grounds at any time hereafter, unless it may be to the advantage of the Board to do so.

On motion of Mr. Johnson, the whole subject was referred to a committee of five, with instructions to report immediately.

Messrs. Williams, Martindale, Mutz and Claypool were appointed.

Mr. Johnson, chairman, reported the following, which was unanimously adopted, Messrs. Dowling and Sample being absent.

*Resolved*, That the State Board agree to release the guarantors from all obligations, upon the payment in full of sixty per cent. of their subscriptions, provided the guarantors will give a release in full to the Board, releasing the Board from any obligation to refund their money or to hold any Fair or Exposition on said grounds at any time hereafter, unless it may be to the advantage of the Board to do so, and the Finance Committee are directed to carry out the resolution.

Mr. Claypool, from the Committee on Thoroughbreds, offered the following:

*Resolved*, That the pedigrees on thoroughbred horses be referred to Col J. H. Sanders, of the National Live Stock Journal, for examination, with a request that he report the result of his investigations to the Secretary as soon as practicable.

Adopted.

The Board then adjourned to January 5th, 1875.

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# ANNUAL MEETING.

1875.

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JANUARY 5TH, 10 O'CLOCK, A. M.

The State and Delegate Board of Agriculture met at the Agricultural rooms, State House. The President, Hon. Jno. Sutherland, being absent, the Vice-President, Wm. Crim, occupied the chair. The roll was called and Messrs. Williams, Johnson, Seward, Claypool, Gerard, Mitchell, Dowling, Ragan, Crim, Sample, Caldwell, Davidson and Lockhart, of the State Board proper, were present.

The following, from County and District Societies, presented their credentials and were admitted as delegates:

Allen county, F. P. Randell, Ft. Wayne.  
Boone county, Jno. Higgins, Thorntown.  
Cass county, L. G. Patterson, Logansport.  
Clark county, D. F. Willey, Charleston.  
Clinton county, A. B. Given, Frankfort.  
Clay county, J. G. Acklemire, Brazil.  
Davies county, R. P. Haynes, Washington.  
Decatur county, W. W. Hamilton, Greensburg.  
Delaware county, T. W. Tuttle, Dunkirk, Jay county.  
Dubois county, A. J. Gosnell, Jasper.  
Fayette county, A. B. Claypool, Connersville.

Floyd county, F. C. Johnson, New Albany.  
Franklin county, F. R. A. Jeter, Brookville.  
Fulton county, C. H. Robbins, Rochester.  
Gibson county, Robert Mitchell, Princeton.  
Grant county, John Ratliff, Marión.  
Henry county, N. R. Elliot, Mechanicsburgh.  
Harrison county, Charles Martin, Corydon.  
Howard county, Samuel Woody, Russiaville.  
Huntington county, Luther Cummings, Huntington.  
Jasper county, G. H. Brown, Rensselaer.  
Jay county, Jonas Votaw, Portland.  
Jennings county, J. V. Milhaus, Butlerville.  
Johnson county, C. B. Tarlton, Franklin.  
Knox county, James D. Williams, Wheatland.  
Lake county, J. Q. Benjamin, Leroy.  
Lagrange county, Jacob Hoagland, Lagrange.  
Laporte county, J. W. Zigler, Laporte.  
Lawrence county, George W. Friedley, Bedford.  
Madison county, H. J. Bronenberg, Anderson.  
Marion county, J. H. Furnas, Bridgeport.  
Monroe county, W. B. Seward, Bloomington.  
Noble county, John B. Stoll, Ligonier.  
Parke county, Thomas Nelson, Bloomingdale.  
Pike county, Orlando Siple, Petersburg.  
Perry county, Robert Tobin, Logansport.  
Posey county, J. A. Cooper, New Harmony.  
Porter county, T. Crumpacker, Valparaiso.  
Putnam county, S. F. Lockridge, Greencastle.  
Randolph county, T. W. Kizer, Winchester.  
Rush county, Thomas N. Link, Rushville.  
Shelby county, John Blessing, Shelbyville.  
Spencer county, James Remine, Jentryville.  
Steuben county, Dr. George W. McConnell, Angola.  
Sullivan county, James L. Nash, Paxton.  
Tippecanoe county, H. T. Sample, LaFayette.  
Tipton county, J. M. Patterson, Windfall.  
Union county, R. G. Hayworth, Liberty.

Vermillion county, John Collett, Newport.  
 Vigo county, Joseph Gilbert, Terre Haute.  
 Wabash county, W. T. Ross, LaGro.  
 Wayne county, R. Baldridge, Hagerstown.  
 Warrick county, Nathan Pyatt, Boonesville.

### DISTRICT SOCIETIES.

Knightstown Union, G. S. Lowry, Knightstown.  
 Fountain, Warren and Vermillion, Geo. Nebeker, Cov-  
 ington.  
 Southeastern Indiana, O. P. Cobb, Aurora.  
 Northeastern Indiana, M. Waterman, Waterloo.  
 Cambridge City District, J. L. Caldwell, Lewisville.  
 Plainfield Agricultural and Horticultural Society, A.  
 Alderson, Plainfield.  
 Richmond Industrial Association, J. M. Gaar, Richmond.  
 Switzerland and Ohio, R. W. Merryman, Hartford, Ohio  
 county.  
 Fountain and Warren, Jos. Poole, Attica.  
 Union Agricultural Association, W. K. Smith, Union  
 City.  
 Henry, Madison and Delaware County, Joan Hurley,  
 Middletown.  
 Gosport District, David Gray, Gosport.  
 Thorntown Union, G. E. Conrad, Thorntown.  
 Bridgeton Union, Dempsey Seybold, Bridgeton.  
 Russellville Union, J. W. Fullenwider, Brown's Valley.  
 Edinburg Union, Jacob Mutz, Edinburg.  
 Mitchell District, D. S. Huffstetter.  
 Terre Haute Horticultural Society, H. D. Scott, Terre  
 Haute.  
 Gill Township, Jno. W. Canary, New Lebanon.  
 Purdue Agricultural College, L. A. Burke, Lafayette.

On motion of Mr. Williams, Hon. L. A. Burke was admitted as a delegate from the Purdue Agricultural College.

The Board accepted an invitation from the Indianapolis Manf. and Real Estate Exchange, to meet at their hall upon the occasion of Prof. Cox's lecture, before them.

The Vice President declared that the reports of the officers were in order according to programme.

The Secretary read a communication from the Hon. John Sutherland, President, stating his inability to attend on account of sickness in his family, and his address was read by the Assistant Secretary.

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### PRESIDENT'S ADDRESS.

*Gentlemen of the Delegate and State Board of Agriculture:*

It is a source of gratification to be able to report to you that the State Fair and Exposition last fall has never been equaled since we have had an organization. There has never been so large a number of entries, and so general a representation in all the departments, which evinces to the Board that the interest is growing and that the Agricultural organizations in the State are increasing in number and in interest.

Twenty-two years has witnessed a marked change in the growth of the State and improvements in all the arts of civilization, and it is apparent to every observing mind that our State, county and district associations have not been unmindful of the duty necessary to keep pace with the age and times.

Gentleman of the Delegate Board, by virtue of your appointment, you are for the time being, members of the State Board of Agriculture, as expressed in article 2nd of the constitution, which I will note for your benefit:

"ARTICLE 2nd. There shall be held in the city of Indianapolis, at such times as may be prescribed by law, an annual meeting of the State Board of Agriculture, together with Presidents or other delegates, duly authorized from each county, or such other agricultural society, as may be authorized by law to send delegates, who shall for the time being, be ex-officio members of the State Board of Agriculture, for the purpose of deliberation and consultation as to the wants, prospects and condition of the agricultural interest throughout the State, and at such annual meeting the several reports from county societies shall be delivered to the President of the State Board of Agriculture, and the said President and delegates shall at this meeting elect suitable persons to fill all vacancies on the Board; *Provided, however,* That said election shall not affect the members of the Board present, whose time shall not be considered to expire until the last day of the session."

The magnitude that the State exhibitions have assumed, the general interest manifested all over the country, the one hundred and sixty thousand visitors that congregate annually, being, probably, the largest concourse of people that collect in our State for any one purpose during the year; the amount of capital and improvements that are upon the grounds, all go to prove that to keep up this interest and make the Exhibition compare favorably with other State Exhibitions, it has, and will require, no ordinary degree of attention and time. As a part of your duty you have met to elect nine members to serve for two years to fill this important station. In performing this duty, I have this request to make, in the language of another, ask yourselves, "Is he honest, is he capable."

The labors of the State Board of Agriculture, since its organization in 1851—(by such men as Gov. Joseph A. Wright, Hon. David P. Holloway, Gen. Joseph Orr, Jeremiah McBride, George W. Brown, Jacob R. Harris, A. Seward, George G. Dunn, Dr. A. C. Stevenson, Thomas Durham, George W. Lane, T. N. Spalding, and others, who came to the capitol on horseback or by stage, which took nearly as many days as it takes hours now)—can not be measured by dollars and cents.

As individuals, as communities, or as States, we *are* what we make ourselves. The early pioneers in *this* enterprise, whose "locks have been whitened by the snows of many

winters" can not but look upon the fruits of their labors with satisfaction, while the influence and the associations of the past must call to mind pleasant reflections. "As we sow so shall we reap." The associations and general influence of enterprising agricultural organizations upon a community, "like bread cast upon the waters, will be gathered many days hence." And we, who are now enjoying the benefits and the blessings of those who, in the past, labored for the general good of our State, ought we, do less than they?

As a State, there is none that has a greater incentive or inducement to advance in all the improvements of the age. Our soil, climate, and products have no superior. We have not been visited by plagues, we have not suffered by drouth, and as a people we know nothing of want or suffering. We are centrally located and our market will continue to grow better as the country grows older. We produce all kinds of cereals, fruits, cattle, hogs, horses, mules and sheep. We not only produce them for home purposes, but we annually export millions of dollars worth to other markets. Our whole State is advancing in wealth. The coal developments of our State are wonderful. Upon closely investigating our State Geological Reports we find the coal measures to cover an area of 6,500 square miles embracing some twenty-two counties in the southwestern portion of the State, and those lands which but a few years ago were worth but a few dollars per acre are now the most valuable lands in the State. The value of the coal interest in our State can not be estimated. For the general good of the country it is of more value to us than the gold mines of California are to the people of that State, giving, as it does, employment to thousands of miners and mechanics, and furnishing much of the transportation on all our railroads.

For a full and detailed statement of all the expenditures, improvements, etc., for the past year, I will refer you to our most worthy Secretary, Treasurer and Superintendent. As will be seen by the Treasurer's report, we are in

debt forty thousand dollars, at ten per cent. interest, payable at any time within five years, having given a mortgage on the Fair Grounds to secure the payment. One year of this time has expired. Thirty thousand of this sum was provided for by obligations which the State Board of Agriculture hold against guarantors of the city of Indianapolis, which sum was to be paid at the close of the Fair of 1874, or that part of it which the Board was unable to pay after canceling all the expenses of the year up to the close of the Fair of 1874.

The Board was unable to make a satisfactory report of its financial condition at the close of the exhibition October 7th, they therefore met on the 18th of November last and made said report, at which meeting the following resolution was adopted, which will explain itself:

*Resolved*, That the State Board agrees to release the guarantors from all obligations upon the payment in full of the sixty per cent. of their subscription; *Provided*, The guarantors will give a release in full to the Board releasing the Board from any obligation to refund their money or to hold any Fairs or Expositions on said grounds at any time hereafter unless it may be to the advantage of the Board to do so. And the Finance Committee are directed to carry out this resolution.

How far the above resolution has been endorsed and complied with can be seen by the Treasurer's report.

The result of the Fair, financially, has not met our anticipations, yet I am of the opinion that proper management and with the experience of the past, there is no good reason why the Board should not make fifteen or twenty thousand dollars clear of all expenses.

I come to this conclusion from the following facts: At the annual exhibition of 1873 we had an attendance of 161,372; in 1874 we had 145,844, making a difference of 15,528. This can partly be accounted for owing to the stringency of money matters and our State elections, which, doubtless, affected the attendance. It is fair to presume that there was as much of an effort put forth the past two years as will be, ordinarily, to induce a large attend-

ance. If so we can not safely count on over 150,000. The county and State Fairs are, like any other legitimate business. Your receipts are so much and your expenses must be so managed that your balance sheet will be in your favor.

This I am fully convinced can be done by the same vigilance and care that has already been given.

By referring to the reports of 1868, '69, '70, '71 and '72, it will be seen that we have increased our attendance, about double.

In my annual address in January last, I then recommended an admission fee of thirty-five cents, which, if we had the same attendance that we did, would have increased our receipts \$14,550.80. After conversing with those who have had many years of experience, and examining the reports of other States in regard to admission fees, I am fully convinced that we should charge fifty cents.

On page eighteen of the Ohio State Agricultural reports of 1873, I find the price of admission in the several States; and out of twenty-one State exhibitions, nineteen charged fifty cents, and only two charge twenty-five cents, as we have done the past two years. We will concede that the attendance may not be so large, but there will not be that difference that many would suppose. Those who come from a distance never take into account what it will cost for an admission ticket. It is fair to presume that it would not reduce the attendance more than thirty thousand, which would leave, say one hundred and fifteen thousand at fifty cents, making \$57,500, compared with last year's \$36,729.50, increasing the receipts for 1875-  
\$20,770.50.

The improvements that were made last year, costing \$9,708, are of such a character, and the condition of the fair grounds and its improvements are such that it will not be necessary to expend but a comparatively small amount for the next exhibition, there should not, under any circumstances, be expended over three thousand dollars. Say that



you should reduce them one-half, which would be four thousand eight hundred and fifty-four dollars going to the credit of 1875.

I would renew my recommendation to not hold the Fair and Exposition longer than twenty days, and would much prefer twelve, but owing to an agreement entered into between the guarantors and the State Board of Agriculture, the Board are for the present, under obligations to hold twenty days. I would require all goods to be in place on the opening or first day, so that visitors can have the full benefit. This would give better satisfaction to visitors and to most of the exhibitors, and would lessen the expenses for ten days, at a cost last year of \$425.63 per day, which would go to the credit of 1875, \$4,256.30. This amount added to the increase on admission of \$20,770.50, and the amount on improvements of \$4,254, making a total of \$29,880.80. This I am satisfied can be done if the same effort and energy is put forth that was last year. With the history of the past two years, it is evident that it will always be attended with unforeseen difficulties.

The nature of the Society, the change of officers, all tend to place it into the hands of those who may labor incessantly, yet inexperience will lead the best of men astray.

I have not changed my views as to the plan of conducting the next exhibition. I would most earnestly recommend that it be submitted to a committee of six; three on the part of the city, and three on the part of the State Board of Agriculture, with the President by virtue of his office, who shall be constituted with full power to make all arrangements for the annual exhibition of 1875. And those on the part of the city to continue to act and co-operate with the State Board during the exhibition, and that they be remunerated for their services the same as the State Board.

I can not close this address without calling your attention to two other very important matters: The coming Centennial of '76, and the Purdue University at LaFayette, both of which are of vital interest to us as a State, and the last

named to us as a Board, it being so closely connected with all that pertains to agriculture. The Agricultural College of Indiana is no longer a myth but an Institution, founded on the broad basis of free education to those of our youth who feel disposed to avail themselves of its advantages, which are many, the principal one being that it is situated within our own borders, which is of great importance to many, and its character as an agricultural school, which necessarily secures for its students that amount of exercise so essential to a sound mind and body, and yet too often neglected in many of our colleges.

We, as an agricultural body should, therefore, have the interest of this Institution at heart, and having the power vested in us as a State Board of Agriculture of electing (with the approval of the Governor) three members of the Board to fill the office of Trustee, you should be very careful that the choice should be judicious, that they are men who shall labor for the promotion of the highest good of the school, who shall guard carefully its expenditures, and who shall seek to make it in every way worthy of the respect and patronage of our people all over the State, and what its large endowments render it capable of being.

Owing to the resignation of L. A. Burke it will be your duty to elect one to fill the vacancy.

The Centennial Exposition of '76 is something of great importance to us as a nation. On its success depends our reputation in foreign countries, and we can ill afford that it be a failure. Other countries have held similar ones, and we have attended, being kindly received and highly pleased. We now are to be the entertainers, they the guests, and our national pride should be aroused and make every exertion possible to make our youthful republic fully able to cope with kindred nations who numbered their years by hundreds before our nation was born.

Viewed thus, it is no trifling undertaking, and can only be accomplished by an earnest effort on the part of each State to do her utmost, and it is none too soon to commence.

Experience has taught us in such enterprises people are apt to delay preparation too long, and thus cause great inconvenience to all parties.

We as a State, can not afford to let this opportunity to bring ourselves and our resources into favorable notice, pass unheeded.

Indiana has borne, long enough, the light esteem of her sister States, owing to their lack of knowledge of her real importance. Our honest pride should rise up in one determined effort to compel their more respectful recognition ; asking no favors, we should simply show the products and resources of our State as they are. But the feeling of interest is not general enough as yet, and it behooves us all to exert what influence we may severally possess to bring about such results as will do ourselves justice.

Gentlemen, I have endeavored to place before you a statement of our past history and future hopes, and also such recommendations as appear necessary or advantageous to the State.

And now, before I close I can not but refer to the successes of the past two years as things upon which we may well congratulate ourselves.

The objects that vaunted themselves as elements to discourage the efforts first put forth to establish, and afterward to keep up the exhibition, have been laid aside, and we have only to persevere in order to overcome the obstacles that lie in our path. We have been thrown together in this task, and have performed our several parts to the best of our ability. It is true, in some things we have failed, but our triumphs are a sufficient indication to all who are at all familiar with such enterprises, to show that our hearts were in the work.

In the management of the interests here represented, many complex questions arise, and it requires the closest

attention to not do in moments of fatigue and anxiety what may afterward need to be explained.

Gentlemen, in bidding you adieu, I can find no words suitable to convey my heartfelt appreciation of your true friendship and support to me during the years I have been honored with this office, the highest position in your body. Your kindness and forbearance has been untiring, and I assure you the remembrance will last as long as life.

JOHN SUTHERLAND.

### SECRETARY'S REPORT.

To the Indiana State Board of Agriculture for the year ending December 31st, 1874.

#### RECEIPTS.

The Treasurer Carlos Dickson, is Dr :

January 1, to U. S. 5-20 Government Bonds.....	\$3,000 00	
January 1, to note on Houston, Joyce & Co .....	\$500 00	
January 1, to note on Gray.....	800 00	
		1,300 00
January 5, to interest on Govern- ment Bonds.....	\$100 80	
January 5, to premium on Govern- ment Bonds, (sold).....	577 62	
		678 42
January 5, to Committee money returned, (Davidson) .....	\$10 50	
September 25, to Committee money returned, (Seward) .....	9 00	
		19 50

April 27, to proceeds from sale of 80 1-5 Society Coupon Bonds each .....	\$500 00	
		40,000 00
April, to State Appropriation.....		1,500 00
August, to insurance policy, can- celed .....	\$2 40	
October, to insurance policy, can- celed .....	9 60	
		12 00
October, to proceeds sale car tick- ets, (Dowling) .....	3 00	
December 5, to proceeds sale three sections hose, (A. Pope).....	25 00	
December 31, to proceeds rent of stalls and time track.....	305 35	
		333 35
		<u>\$46,843 27</u>
October 10, to proceeds of sale Admission tickets, all kinds.....	\$38,584 50	
October 10, to entry fees,.....	1,041 00	
October 10, to sale of privileges...	4,904 48	
October 10, to rent of new im- provements ....	800 50	
		45,330 48
		<u>\$92,173 75</u>

NOTE.—The Treasurer is charged with Guarantee bonds to the amount of \$100,800, on which he is instructed to collect an assessment of ninety per cent, on the whole amount—\$90,720, part of which is paid in full, and a portion sixty per cent. (See Treasurer's Report).

## DISBURSEMENTS.

*General Expense Account.*

On account of members per diem and mileage.....	\$3,632 64
On account of guarantor's committee per diem.....	450 00
On account of salaries .....	2,200 00
On account of printing and advertising.	4,477 76
On account of stationery and stamps..	891 02
On account of tools and supplies.....	382 88
On account of insurance .....	771 75
On account of incidentals .....	440 44
	<hr/> \$13,246 49

*Running Expenses of Exposition and Fair.*

On account of gate keepers.....	\$416 00
On account of employes, sweepers, etc..	1,868 03
On account committees on award.....	504 00
On account of straw.....	127 10
On account of gas consumed.....	1,995 45
On account of amusements.....	596 82
On account of music.....	1,242 00
On account of drayage and freights....	53 35
On account of display.....	300 00
On account of expense running mach- inery .....	638 89
On account of contingent expenses.....	538 27
On account Ass't Superintendents of departments.....	198 75
On account ticket sellers.....	486 00
On account police.....	845 90
On account of art and Museum.....	1,320 04
On account and Superintendents and Assistants.....	2,103 00
On account fuel—coal.....	614 92
	<hr/> \$13,848 52

*Premiums.*

On account of live stock department.	\$7,079 00
On account of mechanical department	233 00
On account of textile fabric d'partm't	417 00
On account of agricultural departm't	713 00
On account of horticultural departm't	1,377 00
On account of art and natural history	60 00
On account of medals.....	150 00
On account of medals, under contract	725 00
	<hr/> \$10,754 00

*Expense of Improvements.*

On account of Derby hall.....	\$775 49
On account of music hall.....	1,000 07
On account of pagoda.....	684 75
On account of grotto and cave.....	1,547 81
On account of repairing in floral hall	257 35
On account of repairing in main hall	320 40
On account of repairing in agricultural hall .....	250 00
On account of repairing fair grounds	2,236 99
On account of decorations.....	983 83
On account of boilers and machinery	724 45
On account of repairs, pavement and fountain .....	239 15
On account of whitewashing.....	204 00
On account of gas fitting.....	796 72
On account of incidentals.....	48 75
	<hr/> \$10,069 76

Total expenses, 1874.....	\$47,918 77
Expense of 1873 paid in 1874.....	\$3,718 88
Bills payable in bank and interest.....	83,113 47
Due the Treasurer on settlement Janu- ary 1st, 1873.....	1,967 10
	<hr/> \$88,799 45

There are orders on the Treasurer uncalled for, which are included in the above statements, in general expense account.....	1,634 74
Premium orders.....	211 00
	<hr/>
	\$1,845 74

The business with the banks, as referred to in the last report, is closed up, and the entire indebtedness, with the exception of some disputed claims in court, is all concentrated in eighty State Board Coupon Bonds of \$500 each—\$40,000—bearing 10 per cent. interest, due in five years, and payable after one year, at the option of the Board.

The issuing of the bonds alluded to, was rendered necessary by an arrangement made with the guarantors of the Exposition Building Fund, for the Board to carry 30 per cent. of the assessment on the amount of the guarantee fund for one year, which limit expired last November.

The Board offered to the guarantors the choice of paying the balance of the assessment, or to cancel the 60 per cent. which had been paid on their bonds. The payment on the assessment was to be returned to the payee, without interest, out of the first surplus net earnings from the Fair and Exposition, after the buildings and improvements are paid for in full. A large portion of the guarantors have accepted the cancelation policy, which is virtually a donation to the Board of \$60,000, the arrangement will compel the Board to continue paying interest on the bonds until "ways and means" are provided for their redemption. The detailed statement of the business connected with the assessment on the Guarantee Bonds will be found in the Treasurer's Report.

#### INSURANCE.

There is \$37,000 of insurance on the buildings within the Fair Grounds, divided among thirteen insurance companies, as follows :



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On the main Hall, (brick),	-	-	\$25,000 00
On the Floral Hall, (frame),	-		3,000 00
On the Amphitheater	-	-	3,000 00
On the Agricultural Hall,	-	-	1,500 00
On the Dining Hall,	-	-	1,500 00
On the Octagon Hall,	-	-	1,500 00
On the old Mechanics Hall,	-	-	600 00
On the Dwelling House	-	-	500 00
On the Cottage	-	-	400 00
			<hr/>
			\$37,000 00

During the month of the Exposition there was additional insurance, divided among ten additional companies at short rates for thirty days, as follows :

On the main Hall,	-	-	-	\$25,000 00
On Paintings,	-	-	-	10,500 00
				<hr/>
				\$35,500 00

There is no insurance on the new buildings, known as Derby Hall and Music Hall.

During the past summer, a lease of ground adjoining the Floral Hall on the south, was granted to Messrs. Lewis, Stone & Reiman, extending for a term of five years, for the purpose of a Green House and attachments. The considerations are: The premises to form part of the exhibition during the State Fair and Exposition, and the lessees to take care of and watch over the buildings during the term of the lease.

The printing and advertising connected with the exhibition has been more thoroughly attended to the past year than heretofore, as shown by the following statement :

Early in the season we sent out to exhibitors three thousand blank applications for space, with advertising card on the same, and during the season have distributed twenty

thousand premium lists, twenty thousand two hundred circulars and lithograph letters, seven thousand five hundred large sheet posters in colors, two thousand five hundred large lithograph posters with business cards, one thousand large chart posters with business cards, twenty thousand dodgers during the Exposition.

The Exposition card, with cut of building, was printed on one hundred and sixty-four thousand envelopes of business houses. One hundred thousand extra edition of a large Journal, containing two pages Exposition advertisement, Ten thousand Farmers' Call, extras, with cut of building. (one page). Advertisements were inserted in two hundred and thirteen weekly papers during August and September, each of which were furnished with an electrotype two column cut of the buildings.

The correspondence of the office has required about two thousand eight hundred letters and one thousand two hundred and fifty postal cards during the year. The number of warrants on the Treasurer, for general expenses, reached five hundred and twenty-three. For the year 1873 the number was seven hundred and sixty-two; for 1872, two hundred and eighty-two; for 1871, two hundred and eighty-nine; for 1870, two hundred and eighty-four. Premium orders numbered one thousand one hundred and ten for 1874.

There were distributed during the month of May five thousand copies of the Annual Agricultural Report of 1873, and last October two thousand five hundred copies of the Geological Report, 1873, with the exception of a few copies kept to supply applications from public libraries. The Reports were distributed to the counties of the State, in proportion to the population of each, through the agency of the County Agricultural Society, where one exists, otherwise through the county Auditor's office.

There is now in existence within the State seventy-one County Agricultural Societies, twenty-one District Agricultural Societies, thirty-two Township Agricultural Societies, and eight Horticultural Societies.

The premiums, awards, and financial exhibit for the year ending October 31, 1874, has been published in pamphlet form, as ordered by the Board in session last February, and as required by law at the close of the fiscal year.

In preparing matter for the publication of the report the same difficulty is encountered as heretofore in obtaining statistical information and alluded to in previous reports. We have been using every facility within our reach to collect information, but without official authority the request for that kind of knowledge is but partially responded to. Statistics of products are useless and not worth printing, unless complete and reliable. The importance of some action in this respect has become necessary to show the progress made in the interest of agriculture, and the importance of Indiana as one among the sisterhood of States. And to this end I respectfully call your attention to a communication from Hon. W. W. Curry, Secretary of State, recommending that the Board of Agriculture have charge of a bureau of statistics with full power to collect and publish the same.

And furthermore, I would recommend that the next session of the Legislature be solicited to make provision for a census of the State during the year 1875. The rapid strides in improvement and increase of products of every description, renders this almost an imperative necessity in order to furnish correct statements and form a basis for calculation. Ten years between the census at the present day, is too long for practical use.

Owing to the peculiar nature of the business transactions of the Board during the past two years, and the extensive transactions with interested parties outside of the Board, the management was subjected to severe criticism, and in some cases misrepresented. The property of the Board is probably the most valuable of that of any similar institution in the country and on the most substantial basis. Although the Exposition enterprise was not rewarded by such results, financially, as was anticipated, there is \$8.50 of assets for each

dollar of indebtedness, which investment can not be shown to be detrimental to the industrial interest of the State. The display in all the departments was a complete success and gives great encouragement for the future. It is interesting to note the gradual increase in the receipts of the Fair, the interest manifested, and the improvements in every department from year to year. The receipts of the first Fair, 1852, being \$4,651.54, and the last Fair, \$45,330.48. There is good reason to believe that this increase can be sustained, and the annual State Fair so perfected that it will be considered as a high school for farmers, and an annual jubilee where associations from each county will have their headquarters and comfortable lodgings, and with the suitable hall already provided, there, indulge in "a feast of reason and flow of soul," and an exchange of practical ideas and theories combined. Much advantage would be gained by bringing the county societies in close communion and the evening sessions of Stock Breeders, so auspiciously inaugurated during the last Fair, would soon grow in importance, second only to the State Fair proper. The immense success of the live stock shown at the last Fair was not only encouraging but flattering, and in the language of one of our exhibitors from an adjoining State: "The foundation is laid and the way is now open for the grounds of the Board to be the National agricultural show ground and mart of trade for breeding animals."

The result of close observation in regard to the usual mode of awarding premiums, especially in the mechanical and artistic departments, prompts a few suggestions relative thereto.

The mistakes that are sometimes made by hasty decisions, while they are of much value to the successful exhibitor, does great injustice to other competitors. The hasty examinations by committeemen in the departments named above, frequently result in dissatisfaction. It is for this reason that the owners of threshing machines, sewing machines, and musical instruments petitioned that no premiums be

offered in their departments, with the assurance that the exhibition in the department named would be increased, than otherwise. And we have heard exhibitors in other classes during the past season express a desire that no premiums be offered. Therefore, I would recommend that the offering of premiums in the mechanical and art departments be abandoned, and that exhibitors in these departments be encouraged to make displays for the Exhibition by every reasonable inducement, and have free access to and from their place of exhibition for a reasonable number of assistants, where such is required. Exhibitors need more attention than is usually granted them, as success in a great measure depends on their efforts. Hence the importance of avoiding any tax or discouragement.

One more subject in which the Board are interested, and I will close. The Indiana State Board have been paying the very highest grade of premiums, while the admission is only one-half of that charged at other State Fairs. A list on file in this office will show that all the State Fairs charge fifty cents admission except Indiana and Kansas.

In closing this statement of the business for the year it would be useless to attempt an acknowledgment of all favors received, but can not omit reference to the mutual assistance rendered by the railroads and Express Companies, and the liberal treatment by the press of the State, and with pleasure acknowledge the kind and courteous treatment in my official capacity. To Mrs. Oren, the State Librarian, the Board are indebted for many favors in making our office comfortable and attractive. To Emmet L. Rose I am indebted for his valuable assistance, ever ready and willing without murmur or complaint.

Respectfully submitted,

ALEX. HERON, Secretary.

January 5, 1874.

## GEOLOGICAL DEPARTMENT.

Financial exhibit for the year ending December 31st, 1874,  
Indiana State Board of Agriculture :

*In account with* CARLOS DICKSON, Treasurer :

*Dr.*

Cash on hand January 1st.....	\$3,159 52
State appropriation.....	8,000 00
Total .....	<u>\$11,159 52</u>

*Cr.*

By orders :

On account of salaries .....	\$6,000 00
On account of office expenses.....	1,984 67
On account of survey .....	2,048 35
December 31st, cash on hand.....	1,126 50
Total .....	<u>\$11,159 52</u>

Respectfully submitted,  
ALEX. HERON,  
Secretary.

January 5, 1875.

## TREASURER'S REPORT.

C. DICKSON, *Treasurer, in account with*  
*Indiana State Board of Agriculture.*

1874.	RECEIPTS.	Dr.	Cr.
January 1.	To U. S. bonds, 5-20.....	\$3,000 00	
	To note Houston, Joyce & Co.	500 00	
	To interest on 5-20 bonds, 6 mo's.	100 80	
	To cash from S. Davidson.....	10 50	

February 1.	To cash from 80 bonds, for \$500 each.....	40,000 00
	To cash from premium on 5-20 bonds sold .....	577 12
April	To cash from amount State appropriation .....	1,500 00
	To cash from insurance refunded.	2 40
October	To cash from rent refreshment stands, etc.....	4,904 48
	To cash from rents, Derby and Music halls .....	800 50
	To cash from sale 118,985 gate tickets, at 25 cents.....	29,746 25
	To cash received from sale 26,157 railroad tickets, at 25 cents.....	6,539 25
	To cash received from sale 11,765 amphitheater tickets at 10 cts...	1,176 50
	To cash received from 978 Exhibition tickets, at \$1.00.....	978 00
	To cash from sale 101 Music Hall tickets, at 50 cents.....	50 50
	To cash from sale 1,843 childrens' tickets.....	92 15
	To cash received at gates.....	2 35
	To cash received from entry fees.	1,041 00
	To cash received from W. B. Seward.....	9 00
	To cash received from insurance refunded .....	9 60
	To cash from Thos. Dowling.....	3 00
	To cash from sale rubber hose.....	25 00
	To cash from E. J. Howland, use of time track, etc.....	305 35
	To cash from interest on guarantee bonds.....	342 45
	To cash from guarantee bonds.....	58,795 40

DISBURSEMENTS.

January 1.	By cash due treasurer .....	1,967 10
	By notes on hand unpaid.....	429 00
	By note Houston, Joyce & Co., unpaid .....	500 00
	By cash paid general expense orders .....	134,843 81

By cash paid Live Stock Department orders.....	6,954 00
By cash paid Agricultural and Horticultural Dep't orders, 1873	511 00
By cash paid Agricultural Department orders.....	619 00
By cash paid Horticultural Department orders .....	1,367 00
By cash paid Fine Art Department orders.....	60 00
By cash paid Mechanical Department orders.....	196 00
By cash paid Poultry Department orders .....	145 00
By cash paid Textile Department orders.....	402 00
By cash on hand .....	2,518 19
	<hr/>
	\$150,512 10    \$150,512 10
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## GEOLOGICAL DEPARTMENT.

C. DICKSON, *Treasurer, in account with*  
*Indiana State Board of Agriculture.*

1874.	RECEIPTS.	Dr.	Cr.
January 1.	To cash on hand .....	3,159 52	
March	To amount State appropriation...	8,000 00	
	DISBURSEMENTS.		
December 31.	By cash order paid ... ..		8,742 67
	By cash on hand .....		2,416 85
			<hr/>
		\$11,159 52	\$11,159 52
		<hr/>	<hr/>

Respectfully submitted,

CARLOS DICKSON, Treasurer.



## SUPERINTENDENT'S REPORT.

*To the HON. JOHN SUTHERLAND, President, and*

*Members of the Indiana State Board of Agriculture.*

I herewith submit my report with accompanying schedule of property belonging to the Board.

In as much as I was not intrusted with any part of the management of the Exposition, I shall confine my report to the management of the grounds and buildings and the State Fair during the past year, with such recommendations as I think necessary for the present year. During the past year I employed one man at thirty-two dollars per month for five months, and for four months at thirty dollars per month to take care of and perform the necessary labor required on the grounds; and teams to the amount of seventy-eight days at three dollars per day. Seventeen days with team was required in filling the west end of the time track; the remainder of the seventy-eight and one-half days was consumed in grading ordered by the Committee on Fair Grounds.

Considerable time was spent in repairing the roof of the stalls, which are much decayed and can not be further repaired with profit, and but for the good weather during the Fair there would have been just cause of complaint by exhibitors of live stock.

Since the Fair the grounds have been raked and the debris removed, and are now in better condition than they ever have been during the winter season.

On the first of December, I discharged the man in charge of the grounds since which time I have not had any person employed on the grounds.

In addition to the above, during the Exposition and State Fair, I had employed laborers two hundred and four and one-half days; carpenters, twenty-nine days; Police, twenty-four and one-half days; teaming and sprinkling, ninety-three and three-fourth days, at an aggregate expense

of \$1,478.17, which does not include any part of J. J. Palmer's pay roll.

That the exhibition was superior to any previous one held by the Board is evident from the fact that extra space had to be provided for every department, and in the live stock department alone it required more than 35,000 feet of lumber to provide stalls and pens after appropriating old Floral Hall for horses which accommodated twenty-eight head.

I submit the following suggestion for your consideration.

1. I would call your attention to the bridges which are in an unsafe condition caused by deepening the State ditch by the city authorities.

2. I would recommend that your Committee on Fair Grounds make an early examination of buildings, stalls and grounds and decide what improvements are necessary in order that your Superintendent may complete them and be fully prepared for the coming Fair and avoid the hurry and bustle that arises by postponing too much until the opening.

3. I would recommend the planting of shade trees in all places that will not interfere with necessary improvements and particularly a row on Central Avenue immediately on the inside of the fence.

4. I would recommend the filling up of the small depressions and furrows which have disfigured the grounds since occupied by the government during the war.

5. I would recommend your Committee on Privileges to have a plat of the grounds prepared, designating the location of buildings now erected and such space as they wish occupied by booths and eating stands, by numbers, and to confine the sale of such privileges to the same locations hereafter, which will prevent the promiscuous destruction of the grass, lessen the growth of weeds, add much to the appearance of the grounds, and be of material advantage in the sale of privileges.

For a detailed statement of receipts and expenditures, I refer you to the report of October 1st, in the hands of the Secretary.

Respectively submitted,

E. J. HOWLAND,  
General Superintendent

#### HORSE DEPARTMENT.

*To the Secretary Indiana State Board of Agriculture:*

SIR:—In obedience to your request, calling on the managers of each department of our last exhibition for a report of particulars, suggestions, etc., being thus engaged in the horse and mule department, will condense a few particulars. The number of entries in the different classes of horses was over five hundred. Each class having close competition, and as a whole being above the standard of like State exhibitions, consequently, making the ring of more than ordinary interest. In heavy draft an unusual interest was justly created by the unparalleled exhibition of the Clydesdale horses from Canada, and the Norman horses from Indiana, and Illinois. In conclusion, I will say without fear of successful contradiction, that the show in this, the heavy draft ring, was never excelled if ever equaled, in the United States. Time horses speak for themselves in your report. Suffice it to say that the different rings were filled with many horses of wide reputation, creating at least the usual interest on such occasions. Of jacks, jennets and mules in their classes numbered over sixty entries; the exhibition was as good if not better than former years. In closing this report I would suggest for the consideration of a future Board, the propriety of extending the horse and mule show a longer term during the exhibition. Believing that the growing interest in this department demands more time to enable each class to make a show without being crowded into late hours in the afternoon, making it very

unpleasant for all parties concerned, and in part not filling the grand object of the exhibition.

Receive an apology for this very imperfect report.

Respectfully,

T. V. MITCHELL,

Superintendent.

CATTLE DEPARTMENT.

*To the Hon. Indiana State Board of Agriculture :*

GENTLEMEN :—The show of cattle at our last State Fair was very fine; it excelled in quality and numbers any former exhibition ever held in this State. This fine show indicates that the breeders of improved cattle are still engaged in the laudable competition for pre-eminence in their business, and that each exhibitor had sufficient confidence in his progress and success to induce him to come forward with his stock in competition with others in the same business. It is to be hoped these comparisons and competitions, made public by our annual exhibitions, will make its impress on the minds of the general farmer so as to stimulate their efforts to bring about a very desirable result, the improvement of our native cattle.

I would recommend that some more efficient and satisfactory plan be adopted, if possible, for the judging of fine cattle. The present system leads to some erroneous awards. This it does from about three causes: First, through a want of ability on the part of some of the judges. Second, through the hurried manner in which they judge. Third, through prejudice on their part for or against particular breeds or strains of blood, and through over or under valuing particular points in the stock.

I would recommend the adoption of the suggestions, as far as practicable, made by Alexander Bruce, as found on page 523 and 524 in the Twenty-eighth Annual Report of the Ohio State Board of Agriculture for 1872.

Respectfully submitted,

JACOB MUTZ,

Superintendent.

## HOG AND SHEEP DEPARTMENT.

*To the Hon. Indiana State Board of Agriculture :*

GENTLEMEN—There was an increase of hogs this year on exhibition, over that of last year.

The pens were well filled, and new ones were built for the accommodation of exhibitors.

Decided improvements have been made in all of the different breeds since the close of the Fair and Exposition of 1873.

This goes to show that breeders in this department of live stock are striving to produce, by close attention and careful breeding, a stock of hogs that will suit packers and justify farmers to feed.

We are well aware that the time has arrived, that we must have hogs to feed that will produce the greatest number of pounds of meat and lard, to the amount of corn fed, for the article of corn from which our *best pork* is made, sells at such prices that it will not justify to feed it to hogs, unless it be to that kind that will fatten at any age.

The Chester Whites, Poland China, and Berkshire breeds seem to be the favorites with the majority of breeders, and are taking the lead over all others. Yet there was a fair showing of all the other breeds on exhibition at our Fair, and of a quality for which, those having them on exhibition deserve much credit.

When we compare the breeds of hogs of fifteen or twenty years ago with those of to-day, we can see, that great improvement has been made in that length of time. This improvement could not be made without a great outlay of money, and much time spent by the men engaged in the business.

The hogs on exhibition at our last Fair, prove that breeders have but one end in view, viz: to produce a stock of hogs that will be superior in all the essential points.

A great many hogs were sold during the Fair, to parties in various parts of our own and adjoining States, and at a

price, it is hoped, that has paid the breeders for their trouble of raising and placing them on exhibition.

The show of sheep was excellent and much larger than the previous year, and a great many new pens were built for their accommodation.

Exhibitors in this department deserve great credit for the interest manifested by them in making so fine a show, which was attested by the crowds of people that visited our Fair.

Among the sheep that were on exhibition was a pen of *Cotswolds*, the property of Messrs. Beattie & Miller, of White Vale, Canada, which were *very fine*, and were admired by all that saw them.

I would suggest that before the next Fair some changes be made in the hog and sheep pens. The most of them are entirely too high in front, and it is impossible for children who visit the Fair to see anything on the inside of the pens, unless assisted by others.

The hog pens should not be more than three feet high in front, and the sheep pens not more than three feet and four inches.

If this is done, it will improve the appearance of the pens and add much to the advantage of exhibitors of stock, by allowing visitors a much better view, and will satisfy the eager curiosity of the little ones.

The Committee on Awards in these departments labored zealously in the duties assigned them, and gave general satisfaction to exhibitors.

Respectfully submitted,

J. B. GERARD,  
Superintendent.

#### MECHANICAL DEPARTMENT.

*To the Secretary of the Indiana State Board of Agriculture:*

DEAR SIR—In accordance with your request, I present to you and through you to the State Board of Agriculture, a brief report, of the Mechanical Department.

The display in this department was a very fine one indeed. The large number of farm implements and machinery on exhibition was very creditable to the manufacturers of this and adjoining States. At the commencement of the Exhibition I experienced great difficulty in getting the articles for exhibition placed in shape to do justice to the exhibitors, for the want of room, as the building designated for this department of the Exhibition and Fair was the east half of the miscellaneous hall. We soon found that there was not room in that building to place one-half of the implements that had been received for exhibition.

With the consent of the Board, I took possession of the building known as the old fine art hall, and proceeded to arrange the display in that building, and after filling it to its utmost capacity, we yet had some machines for which there was no room and had to place them on the outside of the building.

The majority of the exhibitors were well satisfied with the provision that was made for their accommodation, and went away at the close of the Fair feeling that it had been a good exhibition for them.

I fully agree with Mr. Seward in his suggestions, that no premiums be offered on farm implements. As a manufacturer myself, and in conversation with many other manufacturers of this and other States, I beg leave to say that the perfection to which the different agricultural implements have been brought, makes it almost impossible for a committee to make an award on one machine without doing an injustice to many others. I think I express the wishes of almost every manufacturer in the country, when I say that all we ask is to give to us every facility in your power to make a good display of the machinery that we are engaged in manufacturing, and from the advantages we derive in so being able to exhibit our machines to the farmers of this and other States, we shall feel ourselves fully compensated for our time and expenses in exhibiting our machinery, trusting to the merits of each machine exhibited to pay the exhibitor for all expenses incurred.

I would recommend to the Board the using next year of the building known as music hall as a much more suitable place for the exhibition of farm machinery, believing that it would be much more profitable to the interests of the Association to give exhibitors a good opportunity to display the many fine machines that are annually brought here for exhibition, than to use the building for the purpose it was devoted at our last Exposition and Fair.

Before closing this report, I wish to return to Mr. J. B. Gerard my sincere thanks for his kindness in taking charge of my department while I was absent on account of sickness in my family, knowing that to him more than to myself was the successful management of this department of the Exposition and Fair attributable.

I am, respectfully,

R. M. LOCKHART,

Sup't Mechanical Dep't.

#### AGRICULTURAL AND POULTRY DEPARTMENT.

● *To the Indiana State Board of Agriculture:*

GENTLEMEN—I think it is not saying too much when I say, that the exhibition in farm product hall for the year 1874, was the finest ever witnessed in our State at any former State Fair. This, perhaps, was owing principally to two causes. First, to the liberal premium offered to “county organizations” for the best display made by any county society. Second, it is the first time to my knowledge that anything like ample provisions have been made for the exhibition of farm and garden products of our State. It was really gratifying to see the good feeling that prevailed on the part of exhibitors generally. A great many visitors found their way into these halls, notwithstanding the cascade immediately in front of main entrance.



The poultry department was a complete success. Visitors seemed well pleased with the show of birds on exhibition, and I believe exhibitors were generally well satisfied.

Respectfully,

STEPHEN DAVIDSON,

Superintendent.

FINE ART DEPARTMENT.

*To the Hon. Members of the State Board of Agriculture:*

GENTLEMEN—In compliance with the request of your Secretary, I submit a brief report of the Fine Art Department as General Superintendent of that division.

The number of entries was unprecedentedly large, furnishing specimens of rare taste and skill, and the interest from day to day became more manifest.

The variety of specimens were numerous and the execution seldom excelled. The competition so closely matched that it would seem invidious to make special mention of any one of the numerous artists.

Not being an expert in that line, the arrangement of the Art Gallery was delegated to E. C. Tuttle, who was industrious to a fault in making the exhibition what it was, and deserves credit for the general arrangement in making the Fine Art Department so attractive.

Respectfully submitted,

A. B. CLAYPOOL, Supt.

The President appointed the following standing committees:

On Finance—Messrs. Caldwell, Claypool, Baldrige Poole and Robert Mitchell.

On Rules and Regulations—Messrs. Dowling, Davidson, Burke, Collett and Hurley.

On Fair Grounds—Messers. Seward, Sample, Ragan, Ross and McConnell.

On Premium List—Messers. Mitchell. Lockhart, Gerard, Link and Gilbert.

On Unfinished Bussiness—Messers. Johnson, Williams, Mutz, Stoll and Siple.

Mr Poole offered the following :

*Resolved*, That in the opinion of this Delegate Board, the combination of the Exposition and State Fair was unfortunate in the way in which it was consumated, and that we think said combination should be abandoned in the most honorable and fair way it can be done.

On motion of Mr. Williams, the whole matter was referred to the Finance Committee, with the instructions to report to-morrow, at 10 o'clock A. M.

On motion the report of the officers were referred to the proper committees.

Mr. Burke offered the following :

WHEREAS, Some County and other Agricultural Societies in the State have been called upon to pay State and County Taxes on their real estate, therefore be it

*Resolved*, That a committee of three of the State Board proper be appointed to make the proper examination of the law, and if a change in the law be necessary, recommend to the present Legislature to make such changes in the law as will relieve said societies from taxation.

Adopted, and the President appointed Messers. Ragan, Claypool and Williams, committee.

Mr. Seward offered the following :

*Resolved*, That the paying of premiums at our annual Fairs is not conducive to the best interests of exhibitors, and that the whole system should be abolished, and that some other means be devised to compensate exhibitors in part, for the expense of making a display of their stock and goods.

The resolution was tabled.

The nominations for new members of the Board, from expired terms, and from vacancies occurring by resignation were made.

The Secretary read a communication from Hon. W. W. Curry, Secretary of State, looking to the establishment of an Agricultural Statistical Bureau.

Mr. Burke moved to discharge the former committee on the communication. Carried, and the President appointed Messers. Ragan, Johnson and Romine.

On motion of Mr. Lockhart the Board adjourned to meet to-morrow, at 9 o'clock A. M.

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WEDNESDAY, JAN. 6th, 1875—9 O'CLOCK A. M.

The Board met pursuant to adjournment, with Vice-President Crim in the chair. The roll was called, showing an unusually full Board. The minutes of yesterday's meeting were read and approved.

The President appointed Messers. Higgins, McConnell and Burke a Committee on Credentials.

On motion of Mr. Burke, the Board resolved itself into a committee of the whole, to try the Marion Co. Agricultural Societies' case. The case was discussed at length by several delegates and was finally, on motion of Mr. Meredith, referred to the State Board proper, for its action.

Mr. Poole, from the Committee on Finance, made the following report:

REPORT OF FINANCE COMMITTEE.

*To the Members of the Indiana State Board of Agriculture:*

GENTLEMEN—Your Finance Committee, to whom was referred the resolution in regard to the Exposition and State Fair and their separation, and other finances of this Board, would beg leave to make the following report, viz:

By examination of the Treasurer's books, we find the amount subscribed to this Board by the citizens of Indianapolis, to aid and assist in the erection of buildings and to make other necessary improvements for holding an Exposition and State Fair in 1873, in the form of guarantee bonds, was 100,800 dollars, conditioned that no part was to be paid until after the close of the Exposition, and then such per cent. was to be paid as the State Board might find necessary, and assess—to pay all expenses—after exhausting the receipts thereof, we find that the Board, finding themselves in debt about 100,000 dollars, after exhausting said receipts, made an assessment of 90 cents on the dollar.

The Treasurer's books show that 21,160 dollars were paid on bonds at 90 per cent. and the bonds surrendered. We find, also, that on the 18th day of Nov. of said year, the State Board proper passed the following resolution, viz :

*Resolved*, That the State Board agree to release the guarantors from all obligations, upon the payment in full of 60 per cent. of their subscriptions, provided the guarantors will give a release in full to the Board, releasing the Board from any and all obligations to refund their money, or to hold any fair or exposition on said grounds at any time hereafter, unless it be to the advantage of the Board to do so, and the Finance Committee are directed to carry out this resolution.

And that since the passage of said resolution, there has been 21,430 dollars paid by guarantors at 60 cents to the dollar, and their bonds canceled in accordance with said resolution, and that there has been \$16,205.40 paid at said 60 cents to the dollar, and the bonds not canceled; but the Treasurer informs us that he thinks many others will agree to the arrangement and surrender their bonds upon the terms stated in the resolution. There is 13,900 dollars more of the bonds unpaid or otherwise provided for in any way, one-half of which is considered worthless or nearly so, and the balance, has been placed in the hands of Baker, Hord & Hendricks, for collection. The citizens of Indianapolis did a noble act in coming forward and voluntarily subscribing such a large and unprecedented amount of money, and for a purpose of such doubtful return.

The assessments were reluctantly made by the Board, and the amount, as before stated, of \$58,795.40 was received and applied on the debts, leaving 40,000 dollars unpaid, which has been arranged by 1-5 year bonds at 10 per cent. interest, and the Fair grounds and buildings mortgaged to secure their payment.

The financial affairs of the country and the stringency of money matters, has made the payment of these bonds on the citizens quite oppressive, and all things considered generally, they have done as well as could be expected.

Your Committee cannot see, from the reading of these bonds, that there is any contract or agreement that can be construed to give any organization or set of people control of the State Board or their Fair grounds, and would recommend that a kind and liberal treatment be extended to the guarantors and citizens of Indianapolis generally, and that the same courtesy and kindness be expected of them, and that, for a common good of the Board and all the citizens of the State, and especially the citizens of Indianapolis, that the resolution be carried out, and that the State Board use the strictest economy and every possible available means to remove this debt and make an amicable settlement with the guarantors and a grand success of this noble enterprise.

Your Committee would further report that as far as figures and legal payment made by your treasurer upon duly executed orders are concerned, we find them in good condition and strictly correct. The orders of Messrs. Tuttle and Palmer, as paid by your Treasurer, appear very large and exorbitant, but the claims must have been passed upon by some finance committee or authorized power and ordered to be paid, and the orders for payment have been issued and signed by your President and Secretary, and your Treasurer has only done his duty in paying them. We understand that a special contract was made by the Exposition Board with Mr. Tuttle for his services, and that nothing more has been paid than filled his contract. The price paid appears high, but the

committee are not aware of all the services rendered. The amount paid Mr. Palmer (as we understand), ten dollars per day for sixty-one days, making the sum of six hundred and ten dollars, was certainly unprecedented and exorbitant, but the claim was refused by the Finance Committee and referred to the Board, and we understand the Board ordered its payment. That an order was legally drawn and signed by the proper officers for its settlement, and upon presentation your Treasurer has paid it, and it is now too late, and probably out of the power of this Board, to claim and obtain a new settlement with Mr. Palmer. We have been unable to see some of the officers, and have not been able to see any of the guarantors, but would recommend a continuation of the proposition to the guarantors, and that all matters between the State Board and them be amicably and honorably arranged as early as possible, in accordance with said resolution.

All of which is respectfully submitted.

J. POOLE,  
ROBERT MITCHELL,  
RANKIN BALDRIDGE,  
H. CALDWELL,  
A. B. CLAYPOOL.

On motion of Mr. Ross, the report was tabled.

Mr. Seward moved to take from the table his resolution in regard to abolishing premiums on stock and goods.

Carried.

Mr. Meredith spoke at length against the resolution, rather favoring an increase in premiums.

Mr. Seward said he introduced the resolution merely to have it discussed, and thought that the time would come when all Agricultural Societies would abolish premiums and find some other way of remunerating exhibitors for making a display.

After much discussion, which was participated in by several delegates, the resolution was again tabled by an almost unanimous vote.

The Hon. J. D. Williams tendered his resignation as a member of the State Board.

Which was accepted.

Mr. Alderson introduced a resolution in regard to members' mileage.

Which was referred to the State Board proper.

Mr. Burke offered the following :

WHEREAS, The present law of Indiana, in regard to the license to be paid by exhibitions or shows, is defective in that the Supreme Court has decided that license can not be required for any show or exhibition unless the name of the show is expressed in the heading of the bill ; and,

WHEREAS, There are numerous shows or exhibitions that are not named in the heading of the present act ; it is, therefore,

Resolved, That a committee be appointed to examine the law and recommend to the present Legislature such amendments as they may deem proper for the best interests of Agricultural Societies.

Which was adopted.

The time having arrived, the Board proceeded to elect members to fill the vacancies occurring on the Board of Agriculture, and the following members were elected. In the

First District—Robert Mitchell, of Gibson county.

Second District—R. P. Haynes, of Daviess county.

Fifth District—J. V. Milhous, of Jennings county.

Sixth District—T. V. Mitchell, of Rush county.

Eighth District—Thos. Nelson, of Parke county.

Ninth District—W. H. Ragan, of Hendricks county.

Tenth District—A. B. Claypool, of Fayette county.

Eleventh District—Wm. Crim, of Madison county.

Twelfth District—H. T. Sample, of Tippecanoe county.

Thirteenth District—H. Caldwell, of Wabash county.

Mr. Lockhart offered the following:

*Resolved*, That a committee be appointed by this Delegate Board to prepare a bill to be presented to our next Legislature, asking for the passage of a law to prohibit the running at large of boars, rams, stallions, bulls, and all other stock.

Mr. Cobb moved to amend by inserting "and all other stock," which amendment was embodied in the original resolution, and it was adopted as amended.

Mr. Votaw offered the following:

*Resolved*, That the Chair appoint a committee of three to draft a preamble and resolutions asking our next Legislature to pass a law for the thorough revision of the revenue and assessment laws, so that our real estate shall not be appraised oftener than once in six years, and at actual cash value, and that it shall provide for the election of Township Assessors instead of County Assessors, and, also, for the annual payment of taxes in place of the semi-annual payments, and that said committee report to this body to-morrow morning.

Which was adopted.

Mr. Lockhart offered the following:

**WHEREAS**, The present laws of the State of Indiana are inadequate to protect the owners of sheep from the ravages of the sheep-killing dogs, therefore be it

*Resolved*, That this Delegate Board appoint a committee of three of its members, who shall prepare a bill to be presented to our next Legislature, asking for a change in our State laws, so that the owners or harborers of dogs caught in the act of killing or maiming sheep, shall be made liable for all damages so sustained. And that the fund derived from the tax on dogs shall be used only in the payment of claims for sheep killed or injured, where the ownership can not be ascertained of such dogs, or in cases where the owners of such dogs are irresponsible.

*Resolved*, That the tax on dogs shall not be less than three dollars on each male and five dollars on each female dog.

Which was adopted.

On motion the Board adjourned.



JANUARY 7th, 1875, 9 O'CLOCK, A. M.

The Board met pursuant to adjournment with President Crim in the chair. The roll was called and the minutes of yesterday's proceedings read, amended, and adopted.

Mr. Caldwell, from the Finance Committee, appointed to examine the reports of the Secretary, Treasurer, and Superintendent, reported the reports correct in every particular, and the orders issued corresponding with the vouchers on file. The report was accepted and adopted.

Prof. A. C. Shortridge, President of Purdue University, delivered an address upon "Agricultural Education," speaking at length upon the present standing and future prospects of the agricultural college.

Mr. Lockhart moved that the report of the Finance Committee, in regard to a settlement with the guarantors, be taken from the table. Carried.

After some discussion the report was accepted and adopted.

On motion of Mr. Poole, that a committee of five be appointed on resolutions to go before the Legislature and present claims for their passage, the President appointed Messrs. Ragan, Johnson, Waterman, Gilbert, and Barney.

On motion of Mr. Poole the Delegate Board adjourned *sine die*.

# STATE BOARD PROPER.

1875.

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JANUARY 7TH, 1:30 O'CLOCK P. M.

The Board met pursuant to the call of the Vice President. The roll was called and Messrs. Mitchell of Gibson, Haynes, Johnson, Seward, Milhous, Mitchell of Rush, Mutz, Nelson, Ragan, Claypool, Crim, Sample, Caldwell, Davidson and Lockhart, were present.

The President announced that nominations and election of officers of the Board were now in order; and the Board proceeded to an election of officers for the ensuing year, with the following result:

Hon. Wm. Crim, President.

Hon. Stephen Davidson, Vice President.

Alex. Heron, Secretary.

Carlos Dickson, Treasurer.

E. J. Howland, Superintendent.

For members of the Executive Committee, Messrs. Caldwell, Claypool, Lockhart and Sample.

The Hon. F. C Johnson was declared recommended to the Governor as Trustee of Purdue University, to fill the vacancy caused by the resignation of L. A. Burke.

On motion of Mr. Claypool, the Board proceeded to the final disposition of the Marion county case.

Mr. Claypool thought the case involved a legal question, over which the Board had no jurisdiction.

Mr. Crim thought that it was the duty of the Board to make a final disposition of the case, and present the certificate to the society entitled to it.

Messrs. Furnas and Frances each made a statement, presenting their individual society claims.

On motion of Mr. Claypool the matter was referred to a committee consisting of Messrs. Mutz, Seward and Mitchell of Rush.

The President appointed the following Standing Committees :

On Finance—Messrs. Caldwell, Claypool and Mitchell of Gibson county.

On Rules and Regulations—Messrs. Nelson, Davidson and Milhous.

On Fair Grounds—Messrs. Mitchell of Rush, Sample and Ragan.

On Unfinished Business—Messrs. Johnson, Haynes and Mutz.

On Premium List—Messrs. Seward, Sutherland and Lockhart.

Mr. Claypool moved that the live stock show commence on the last Monday in September, (27th,) and continue not less than one week.

Carried.

Mr. Mutz moved that when this Board adjourn it adjourn to meet February 9th, 1875.

Carried.

The Board voted to carry the "Gray case" to the Supreme Court.

On motion of Mr. Ragan, the so-called "rejected models" were ordered to be given to Purdue University, subject to removal at any time, at the option of the Board.

After some discussion, a resolution introduced in the Delegate Board, in regard to the "mileage" of the members of the State Board of Agriculture, was adopted unanimously.

Carlos Dickson, Treasurer, Indiana State Board of Agriculture, submitted his bond, which was accepted. — —

Resolutions endorsing the Indiana Farmer as a first-class agricultural paper, and recommending it as eminently worthy of patronage, were introduced and adopted.

Mr. Seward, from the Committee on the Marion County Societies' case, reported the following :

Your committee, to whom was referred the matters in controversy between the agricultural societies in Marion county, would report that we have examined the laws on the subject and the records in the Recorder's office of Marion county, and find that the Marion County Agricultural Association of Valley Mills, is the only society that has complied with the law by filing articles of association. We therefore recommend the Secretary of the Board to issue a certificate to the society before mentioned, believing, as we do, that they are entitled to the county funds received for show license.

(Signed,)

JACOB MUTZ,  
T. V MITCHELL,  
W. B. SEWARD.

On motion of Mr. Lockhart, the report was accepted and adopted.

On motion of Mr. Seward, the President, Secretary and Treasurer of the Board were authorized to borrow money to meet the obligations of the Board.

After allowing some bills presented, the Board adjourned to meet February 9th, 1875, at 2 o'clock P. M.

## EXPOSITION OPENING.

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The Second Exposition and State Fair was opened officially upon the evening of the 7th day of October, 1874. The same fault was noticeable that marked the opening of the initial Exposition of 1873—and in fact of all Expositions—that of exhibitors being tardy in arranging and fitting up for their display, and in consequence the space allotted to them being unoccupied.

Those who attended the first Exposition must have been struck with the vast improvements in the *Main Hall*. In its centre a large and handsome Pagoda, reaching almost to the roof, was erected for a *Music Stand*; it is adorned by every color imaginable blended in such artistic taste as to make the entire center, in appearance, exceedingly rich and ornamental. Around this, and hanging upon the side of the square openings, were artistically painted curtains and scrolls, crimson, gold, scarlet, purple, white and blue colors predominating, which in execution were even better than reality could be, and forming suitable surroundings for the very richly colored Pagoda.

The pillars throughout the hall were painted red, white and blue, and the vast ceiling toned down to a pleasant brownish color, and the pillars in the upper story transformed into palm trees spreading forth their green palm branches. In the hall the groups of ladies and gentlemen promenading up and down, peering into every nook and corner, anxious to see what was to be seen. The buzz and

whirl of machinery, the ripple and splash of water at a distance from the cataract in Floral Hall, mingled with the merry laugh of children, made a bright and picturesque scene, producing upon an observing mind a decidedly pleasant effect.

The arrangement of the "displays" in the Main Hall was much better than that of last year, forming a much pleasanter contrast, the allotment of space being under the supervision of, and engineered by Charles A. Howland, a member of the Executive Board, who showed himself very efficient in a capacity which very few men could have filled with credit.

One of the grand features of the lower hall was a well executed painting of Thomas D. Kingan's pork packing establishment, illustrating the processes of slaughtering, curing, rendering and packing, and rendering the business entirely intelligible at a glance to one who had never visited an establishment of the kind. We will not go into a detailed description of any of the "displays;" sufficient to say that they were all tasty and suitable to the business they were designed to represent, and were all the Board could reasonably expect of the exhibitors.

#### FLORAL HALL

And the Grotto attracted the greatest attention, as they well deserved, being the most attractive feature of the Exposition, the people seeming to appreciate the grateful fragrance of the plants and flowers, as they walked around and closely and admiringly examined the neat and well kept beds. A touch of nature seemingly pervaded the place, and the feeling was further enhanced by the ripple and splash of the Grotto at the further end of the hall.

The display of plants and flowers at the exhibition in 1873 was a superb one—not only a delight to all who beheld it, but a genuine surprise to the great majority of the people, who had taken no note of the enterprise of our local

florists. Such as had occasionally visited the green-houses about the city had been accustomed to see the old and standard bedding and green-house plants—such as their wives and mothers had cultivated from time immemorial, and the only difference they had noted between the florists' establishment and their own gardens and sitting-room windows was that in the former there was a greater display. They had taken no note of the fact that the florists had been patiently at work educating the popular taste, and by degrees creating a demand for better things—for improved strains of the older plants and for novel and beautiful exotics heretofore supposed to be unobtainable—at least so far from the sea-board. To all of this class the display of 1873 was a revelation, and as they gazed upon it and feasted on its beauties their wonder was not less than their admiration.

But fine as the show in Floral Hall was that year, that of this Exposition far eclipsed it, not only in quantity, but in the quality of the plants exhibited.

The plan of the hall was completely changed, and instead of a large bed in the center, with two smaller flanking beds, the space has been cut up into seven mammoth beds, extending from side to side of the hall. Looking down the hall from the doors of the main building the eye met an unbroken mass of tropical foliage, the effect of which, as a whole, was very striking. The harmonious grouping of the plants in the beds added greatly to the general effect, and reflects the highest credit upon the skill and taste of the florists.

Looking down the hall from the west end the view closes with the mimic gorge and cascade, which the year before formed the chief attraction in this department. This piece of work has been vastly improved under the direction of Dr. Allen, and there has been added on the south side an artificial cave, which counterfeits nature so closely that on entering it the visitor can scarcely divest himself of the feeling that he is exploring a natural subterranean wonder. The whole effect produced upon the visitor on entering the hall,

with its gorgeous array of plants and flowers, its sparkling fountains and rocky gorge and cascade, is one not easily to be forgotten, and suggests irresistibly the hackneyed thought of the enchanter's wand.

Though the general effect was so satisfying to the casual observer, a closer view, and a study of the groups in detail will be a source of far greater pleasure to the lover of nature and her beautiful productions.

We have not space to spare for a very extended description of the different collections, but will simply call attention to some of the more notable of the flowers in each.

Entering the hall from the west, the first two beds were occupied by Wiegand with a grand collection, embracing beside all the more generally known plants, many that are novel and striking, and exhibited for the first time. The most striking plants of this collection were a number of palms, including several specimens of *latania borbonica*, a beautiful and perfect *Phoenix dactylifera* and an *areca rubra*. The two last named were the most perfect of their kind ever shown here, or likely to be for years. Their growth is slow, and this, added to the fact that the utmost care is necessary to their perfect development, makes them costly, so that the demand is limited, and florists can do little with them in this part of the country, except to keep them for exhibition plants. Another striking plant in this collection was a *panandus javanicus* fol. var., the largest we have seen in the West, and in a perfect state. Near it stands a specimen of *alocasia machoriza*—a beautiful plant allied to the calladiums, its broad leaves about half pure white while the remainder is of a rich lustrous green.

There were, also, a number of handsome *dieffenbachias*, *marantas* and *dracænas*, while the spaces were filled out with fancy *caladiums*, *coleus*, etc. Prominent among the flowering plants were a number of *manettias*, which presented a strikingly beautiful appearance with their bell-shaped flowers of brilliant scarlet. Among the tall growing plants was a fine specimen of *musa zebrina*, a *ficus elasticus*



(or rubber tree), *erianthus ravnennæ* in bloom, *calocasia odoratissima*, and several specimens of *philodendron monstrosum*, one of which is fruiting. There was a new variety of *cyperus*, larger than the common variety, and with finer foliage. There was also shown a splendid collection of ferns, prominent among which were an *alsophylla Australis* (tree fern), *lomaria gibba* (tree fern), *pteris argyron- eura*, *pteris tremula*, etc., all of large size and handsome shape, and a large quantity of smaller growth. Also a very choice collection of begonias of the fancy-leaved section. At the west end of the bed was a nice specimen of magnolia. There were many more specimens in this collection well worthy of special mention.

The next collection was that of Lange & Bock, who make a magnificent display in all departments. The first of their two beds contained, besides a great variety of coleus, caladiums, marantas, dracænas, and other smaller plants, a magnificent specimen of *cissus discolor*. A finer specimen of this superbly beautiful climber has never been exhibited west of the Allegheny Mountains. It attracted attention as the most showy specimen in the hall. At the west end of this bed tower the lofty and spreading leaves of the *colocasia odoratissima*—the largest single specimen in the hall, and a beauty. The next bed contained their grand collection. The more striking features in this are several specimens of *musa* (or banana), one of which is in fruit, a handsome *figus*, a beautiful specimen of the *erianthus ravnennæ* in bloom, and a choice and admirably grown selection of smaller plants—dwarf palms, *dieffenbachias*, marantas, dracænas, crotons, caladiums, agaves, yuccas, *campilobotris*, etc. Here and there were disposed a few bedding plants, in bloom, to relieve the monotony of green by their brilliant colors. Messrs. Lange & Bock make a special display of begonias, ferns and *lycopodiums*. These were placed in the bay window on the south side of the hall, back of the smaller fountain, and make one of the handsomest displays in the hall.

The next two beds were occupied by Hilker. In the first are shown a variety of smaller plants, coleus, caladiums, begonias, ferns, lycopodiums, etc., while in the second is another grand collection. Among the more notable plants in this collection are, a very fine musa, several mammoth abutilons, a very handsome pomegranate in flower and fruit, a noble group of cannas, and a superb specimen of the agave Americana. The collection embraced some of the handsomest ferns in the hall, and a choice assortment of begonias, together with a number of dracænas, campilobotris and other plants, both old and new.

The single bed between the fountain and the grotto, was occupied by Heinel Brothers, of Terre Haute, with a very choice collection. Owing to the distance they had to transport their plants, they made no effort to display large specimens, but contented themselves with placing on exhibition a more modest collection, which, while displaying great variety, attracted attention by reason of the splendid condition of each plant shown. Their collection embraced the handsomest collection of ferns in the hall. Prominent in this class were two large and perfect alsophyllas and half a dozen or more of lomarias—each one perfect, even to the lowest leaf. They also exhibited several perfect specimens of cycas revoluta and a number of new dracænas, all very handsome. Among the smaller plants, which should be searched out are such as aloes, cactus, etc., of which they exhibited a number—all quite small—which were never seen here before. A new ficus, with broad, waxy green leaves, attracted attention. It is a plant of striking beauty. This was a splendid collection, taken as a whole, though less pretentious than those of the Indianapolis florists.

On the south side of the hall was a very pretty display of cut flowers from James Vick, of Rochester. There was a number of gladiolus, asters, phloxes, stocks, dahlias, lilies, cockscombs, tritomias, ornamental grasses, and everlasting flowers, all of which were very handsome.

As a part of the regular Exposition—although not competing for premiums—the green-houses of Lewis, Stone &

Rieman, adjoining the hall and communicating directly with it, added greatly to the display, and every visitor inspected it carefully while viewing the beauties of the Exposition. Here will be found many rare and curious plants, such as orchids, *nepenthus distillatorius*, etc., which can be seen in no other place in this vicinity.

#### THE OPENING.

The exercises incident to the formal opening took place in "Music Hall," commencing promptly at eight o'clock, P. M., the hall being crowded to its utmost capacity. On the platform at the north end of the hall were seated the Hon. Thos. A. Hendricks, Governor, the President, and members of the State Board of Agriculture, together with the Executive Committee of the guarantors to the enterprise, Prof. E. T. Cox, and other prominent citizens. President Sutherland called the assemblage to order and the exercises began with Keller's "Champion Quickstep" by the band. The whole audience joined in singing that grand old composition "Praise God from whom all blessing flow," followed by prayer by the Rev. J. P. E. Kumler.

#### PRAYER.

Almighty and everlasting God: We adore Thee as God over all, blessed forever, of whom, through whom, and to whom are all things. The heavens declare Thy praise and the earth is filled with Thy glory. All the works of creation, all the events of Providence, and all the exhibitions of grace conspire to exalt our conception of Thy character, and to exact our acknowledgements of Thy beneficence and love. We thank Thee that we have so goodly an heritage; that we are in the enjoyment of a Christian civilization; that we are unmolested in our civil and religious liberties. We thank Thee that Thou hast smiled upon our commonwealth, and given us general health, peace, and prosperity; that Thou hast caused our fields to produce abundantly, and our flocks to multiply, and our mechanic arts and material resources to be so marvelously developed. Thou art the giver of every good and perfect gift. Thou hast clothed the lily and given men power to get wealth and to devise cunning workmanship. Help us, we beseech Thee, to recognize Thy hand in all the items of this Exposition, about to be opened to our admiring gaze.

We do beseech Thee that Thou wouldst impress the hearts of men with Thy love and fear, that neither falsehood nor fraud, neither Sabbath desecration nor immorality shall mar the exhibition. Preserve, we beseech Thee, the multitude that shall here assemble from all calamity and evil, and make this display of the achievements of art and science and skilled labor promotive of Thy glory and the welfare of men; and may every heart reflect that if the earth is so full of Thy riches, what must that better land be, the riches and glory of which no eye hath seen, nor ear heard, nor the heart of man conceived. Grant us all an abundant entrance into the resplendant glories of that heavenly kingdom through the riches of grace in Christ Jesus our Lord. Amen.

At the conclusion of the prayer, the Choral Union sang, "The Heavens are Telling," from Creation, in magnificent style.

Hon. John Sutherland, President of the State Board of Agriculture, then addressed the assemblage as follows:

*Ladies and Gentlemen:*

We have met to inaugurate the present Exposition, the second one of its kind in Indianapolis, and the twenty-second reassembling of those component industries which we hope have not been without profit to our people all over the State.

In the brief time allotted to these remarks, it will be impossible to give more than a hasty glance into the dim vista of the past fifty-eight years, since Indiana first took upon herself the dignity of a State, but that glance may not be without profit, as it is well sometimes to pause and look backward for encouragement and a better realization of the situation of to-day.

Fifty-eight years is time enough for vast improvements to be made all over our land. Note the changes that have been made in your own city. What was Indianapolis fifty years ago? A wilderness of trees, swamps, and unbroken lands, untenanted save by the wild beast, the Indian, and a few hardy pioneers, who were striving by herculean efforts—for what? for fame? for wealth? No; for homes! homes for themselves and their little ones; homes for

you and I. For these they felled the forests and tamed the wild prairies, "where now thriving towns and villages stand, the fertile farms among." For these early citizens were farmers as a class. Indiana did not rise like a meteor to flash athwart the blue of our Union and take a place with her elder sister States; her vast mineral resources lay securely hidden away in the embrace of mother earth, unsuspected by the sturdy plowman, who wearily plodded over their tenement, year after year, but no good genius spoke the word to cause them to spring from their dark cells; earnest labor has been the only "open sesame" we have had to our present condition. Yet the tillers of the soil waxed strong; that prosperity which is the result of honest toil was theirs; other interests began to come in; new impulses were given to industry, and recognizing the fact of the perfect fitness of all the mutual dependence of one upon another, for the adaptation of all to the highest and most absolute good, these men met together twenty-two years ago, and formed a society for the encouragement of home industry, founded upon the immutable principle that nothing can fully and completely work out its results, independent of all other things. A society where the farmer, the mechanic, the merchant, could all be represented and encouraged; for, having agriculture as its ground work, the grand binding tie of all, it still realized the fact that the farmer is not everything; the grain must be ground before it can be consumed, and the miller is not a farmer; wool, cotton, and flax must be cleaned, carded, spun, woven, shaped and joined before it is of any value to man, but the manufacturer or the tailor is not the farmer; man can not live on bread alone, for the tools with which he labors for his carriages, clothing, newspapers, and luxuries, more of which he possesses than did the kings of ancient times, the farmer is dependent upon other men. It would be a plunge into barbarism, and would reduce the population to a barbaric standard to deprive either the farmer or any other class, of what they receive from other men; but agriculture is the grand underlying principle, which binds together the greater

part of the productive labor of the world. Nearly all the raw material upon which the enegies and skill of man are expended, are the products of the soil, as agriculture employs the mechanic, moves the wheels of the factory, and propels the laden vessels across the seas. Whether, since that memorable day, twenty-two years ago, we have labored for aught, we leave you to decide. There are good reasons for believing that our people have not as yet fully comprehended the benefits directly or indirectly growing out of this laudable enterprise, both to the public generally and individuals. For the money and time it costs visitor, there is no place one can go where so much practical knowledge can be gained in so short a time. If our people, and especially our farmers, would take a week and carefully and judiciously investigate what is to be seen at an Exposition of this character, they could not make a better investment of time or money.

The great mistake so many make is in allowing themselves but a day which gives but a confused idea where there is so much to be seen. Whether in the fifty-eight years of our sovereignty we have made as great advance up the hill of progress as we should, remains for others to say; as to whether we have made good use of the talent God has given, "or like that unfaithful and slothful servant" spoken of in the parable, "hidden it away in a napkin." I think the evidences of skill and industry around you will sufficiently answer.

Cities and villages dot our State from line to line—humming with the noise of busy life and traffic. Indianapolis is no longer the struggling capital of a poor and despised State, but a metropolis that can lift her head proudly among sister cities many years her senior. Nature has, with a lavish hand, done much for her, and too great credit can not be given to her enterprising citizens for the public spirit they have displayed in the interest of the city. The energy and labor they have put forth has made it one of the great railroad centers of the Union, and a city that to-day is spending as much money in improvements as any

other of 100,000 inhabitants, with as bright a future and as great inducements for the stranger to find a home as any city in the United States, and all the result of hard, earnest labor; as the past has been, so must the future ever be, one continued warfare, and one continued victory as well, whose notes shall resound from Maine to Oregon. Aye, and distant climes shall catch the strain and proclaim abroad our honorable reward for honest toil.

Indiana has triumphed. She has taken from their dark prison-houses those treasures which the earth holds so abundantly, yet so unwillingly yields, and has wrung from unwilling lips notes of praise and admiration.

The band then played a musical selection, after which President Sutherland stepped forward and introduced Governor Hendricks.

#### GOVERNOR HENDRICKS' ADDRESS,

It is our pleasing duty this evening to participate in such proceedings and ceremonies as are deemed suitable in opening the second annual State Exposition, and I am sure we all rejoice at the encouraging prospects of the success of the enterprise. This Exposition is under the management of the State Board of Agriculture, and will be an introduction to and constitute a part of the State Fair. The Exposition and Fair are State institutions, and I do not fear that the people of the State will allow either of them to fail. In very many respects they are useful. They furnish occasion and opportunity for the people of the different parts of the State to come together and enjoy pleasant and profitable association. The result is reciprocal benefit, cultivation and refinement. They are schools in which all are teachers and all are scholars. They are schools in which that class of useful information is communicated which is acquired by experience. Here also we meet enterprising and cultivated citizens of other States, who contribute to the pleasures of the occasion and the general fund of useful knowledge. Very cordially we welcome them.

By the union of the Exposition and Fair, art, science, skilled labor and agriculture are brought together, and mutual respect and interest are promoted. Here the scientist, the artisan and the farmer stand face to face, and come more thoroughly to know and understand their mutual dependence and welfare. From the farmer, the machinist may learn defects in his machinery, which experience has developed; and from the scientist he may receive suggestions which will enable him to economize space and power. And in return the farmer learns the uses and advantages of implements and machinery not heretofore tried or used by him. And all, the farmer and the artisan alike, go away with more comprehensive views in respect to the assistance which the laws of nature will give them if wisely invoked. The dependence of modern agriculture upon improved implements and machinery was never so thoroughly demonstrated as during the war. More than a million of men were called from the pursuits of peace. The requirements of the army made an increased demand upon the productions of the farm. The increased supply of improved machinery took the place of the absent labor. With the old style plow, and the sickle and scythe, the work could not have been done. Without the improved plow, the drill and cultivator, the fields could not have been cultivated, and without the reaper, the mower and the thresher, the crops could not have been harvested nor the meadows mown. The machines never tired, but went on, each doing the work of many men. Improved machinery supplied the places and did the work of many hundreds of men.

It was wise and proper, on the part of the State Board of Agriculture to unite in exhibiting the products of agriculture and of the mechanic arts. I can not undertake to refer in detail to the many objects of interest to be found in this Exposition. The specimens of manufacture and of work in iron, wood, marble and leather show the highest



skill on the part of the artisan. Very beautiful and exquisite are the specimens of work presented by the women of our State, and they do much credit to their taste and culture. On behalf of the Board I thank them for so attractive an addition to the exposition. Much interest will cluster around the beautiful specimens of the fine arts. Many of the pictures on exhibition are of superior excellence, and it is gratifying to say that some of the finest are by Indiana artists. They are an ornament to the Exposition, will be a source of pleasure to thousands, and will have an elevating and refining influence.

Triumphs were allowed by Rome to her successful generals against the foreign enemy. All joined to add to the grandeur of the display. A writer thus describes the triumph: "The appearance that Rome presented on the occasion of a triumph, especially in later times, was joyous in the extreme. All work was suspended; the temples were thrown open and decorated with flowers; the populace were clad in holiday attire, and crowded the steps of all the public buildings in the Via Sacra and forum, or mounted the scaffolding erected for the purpose of viewing the procession; banquets were spread before every door. The captives taken in the war and the spoils taken from the vanquished, were marked features in the triumphal march." Such honors were then paid as are yet shown to those who become illustrious in war. But peace, too, has her achievements which the people honor and bear in grateful memory. He who invents new and useful devices whereby the burdens of labor are lightened and the hardships of life are mitigated; as he who of patent labor and artistic and mechanical skill, utilizes the inventions of genius and by his cultivated taste adds beauty to the useful in life, have their triumphs, and the genius of the mechanic arts carries the civil crown in the triumphal chariot, and all people "clad in holiday attire," strew the way with flowers. This Exposition with gorgeous displays, with music and with

banners flying, is the triumph awarded by the people to those who contribute the beautiful and the useful for man's happiness and refinement.

Following the Governor's address was the chorus, "The Marvelous Work," given with splendid effect. At its conclusion, President Sutherland formally opened the Exposition in the following words:

**LADIES AND GENTLEMEN:** On behalf of the committee who have had charge of this enterprise in fitting it up and repairing it for this Exposition up to this time, and on behalf of the State Board of Agriculture, in concluding the exercises this evening, I now declare the Exposition opened.

The final chorus, the "Star Spangled Banner" was rendered with fine effect and closed the opening exercises.

#### LIVE STOCK DEPARTMENT.

The show in this department of the exhibition began on the 29th day of September, and continued one week. The display far surpassed any other ever seen in the State, and was never excelled at any other State exhibition. On Friday evening of the 25th, the stock began to come in and from that time up to Tuesday the 29th, came in by droves until the grounds were filled to overflowing, additional stalls and pens were built as fast as they could be erected to accommodate exhibitors, but could not supply them all with shelter; and many left, there not being accommodations upon the grounds for them.

Much as the exposition served to attract by the display of the arts and mechanism, the chief interests of the exhibition seemed to centre in the show of live stock. The success of this department the year previous was beyond expectation, but the entry books for 1874, show an increase of two hundred and fourteen in the number of entries, and a total of one thousand four hundred and fifty three entries of live stock.

As the splendid animals of almost every kind of a domestic nature were brought within the grounds, the delight of the spectators almost amounted to enthusiasm. The adjoining States and the Canadas were here represented in friendly competition, and each claiming superiority. The large and splendid show of horses of the different grades, from the heavy Clydesdale to the light roadster, came in for their full share of admiration.

The cattle exhibition was immense. The entries in this department numbered one hundred and twenty-seven, and was all that the most ardent admirer of the bouvine race could desire.

The hog department excelled anything of the kind ever witnessed in this country, in evidence of which visitors from adjoining States were free in their expressions. The entries for premiums in one class alone reached one hundred and forty-five. So with the sheep department, the specimens were numerous and of all classes; forty-seven entries in one class for sweepstakes, and the same with poultry, one hundred and fifty entries, and each one worthy of a premium.

The advantage of these annual exhibitions can not be fully arrived at without noting the improvements as contrasted with a few years past. To this end we would suggest that some rules of measurement be adopted in awarding premiums on live stock, and record of the same be kept for reference in future years.

It is a remarkable feature of the Indiana Exposition of 1874 that all the departments were well represented without a single exception, not only in the live stock department, but in all departments extending throughout the immense buildings erected for the purpose of the Exposition, thereby proving a complete success.

## CENTENNIAL.

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The sixteenth day of the Exposition was one of the most successful in its history. "From early dawn till dewy eve" the halls were thronged, and at times were absolutely choked with humanity. The interest was occasioned by the visit of the distinguished gentlemen from Pennsylvania, ex-Governors Bigler and Pollock, of the Centennial Board of Finance. They dined with the members of the State Board of Agriculture and several prominent citizens at the Hotel Bates, after which the party were driven to the Exposition building, arriving at about half-past 2 o'clock. They proceeded to Music Hall, where the mass meeting in behalf of the Centennial was held. The hall was filled, and during the continuance of the meeting the audience remained remarkably quiet, considering the accommodations of the hall and the state of the weather. On the stage were seated Governors Bigler, Pollock and Hendricks, Mr. Welch, of Philadelphia, members of the State Board of Agriculture, the Executive Committee of the Exposition, Professor John L. Campbell, Secretary of the Board of Centennial Commissioners, Professor Cox, Judge Roache, Dr. W. C. Thompson and others.

After music by the Exposition band, President Sutherland called the meeting to order, and announced that Governor Hendricks would introduce to the audience the visitors on the stage.

## GOV. HENDRICK'S REMARKS.

Gov. Hendricks came forward and was received with applause. He said:

I arise, not to make a speech on this occasion, but to welcome to our State and Exposition the distinguished visitors from Pennsylvania, and to introduce them to you. They come to explain to us in detail the movements adopted and now being carried out in pursuance of the act of Congress passed to secure the success of the Centennial Exposition in 1876. I can not believe it necessary to appeal to the patriotism and national pride of the citizens of Indiana in behalf of this object. There is none that will not take pride in that exposition, when the time for its opening arrives. It is being carried on in pursuance of an act of the National Congress, and I am grieved to see it spoken of as a local affair of Pennsylvania and Philadelphia. Since Congress has approved the scheme it has become the exposition of every man, woman and child in the country. Our honor is involved in its success. If Congress had not invited the nations of the world to come up and help us to make it an international exposition, if the National Congress had not considered it, we would not be so desirous about it. But when Congress declared it should take place, it became the work of the whole people, and who would now see it fail? When the scheme was first agitated there was a fear that it was intended as a money-making affair, when such men as Governor Bigler and Governor Pollock, upon whose names and reputations not a single stain rests, took hold of the finances of the exposition, I ceased to feel concerned about such matters; and I can say that when such men take hold of the enterprise the people of Indiana need feel no fear of being wronged.

I bid you welcome to our State, gentlemen, and in the name of the people of Indiana, wish you success in the object of your journey, both here and elsewhere that you will present the claims of the Centennial Exposition.

Ladies and gentlemen, I have the pleasure of introducing to you now, Governor Bigler, who will claim your attention for a few minutes.

#### GOVERNOR BIGLER'S ADDRESS.

When Governor Bigler arose he was received with cheers. He began his address by referring to the generous, warm-hearted reception he had received in Indianapolis on all hands, and said he thought he could see in it something more than the generous courtesy so characteristic of Western people. Himself and associates make no personal application of this welcome, except so far as it shows sympathy for them as representatives of the Centennial work. To repay you for some of your kind attentions, we would cordially invite you to be with us at the celebration in Pennsylvania in 1876, but such action would be presumption on our part, as the celebration of the birth of the nation is as much your work as ours, and your duties towards it are similar to ours. But we can assure you on that occasion the latch-strings of Philadelphia will all be on the outside. While Philadelphia may be "short" on hotel accommodations, she has plenty of houses and can care for 200,000 or 300,000 friends without inconvenience.

Until yesterday I thought there was no place like Philadelphia for domestic comfort, but a ride through this marvel of energy, this beautiful capital, shows me much the same state of affairs existing here.

We have come here, not to teach—we have no such vain idea—the Western people how to conduct expositions, but to learn how to do it ourselves. Pennsylvania bears in some relation the character of parent to the Western States, but you know it is not an uncommon thing for the child to outstrip the parent in great achievements and fine accomplishments. And in this Centennial work it is intended to have the whole family come together, and each member contribute something to the common interest of the occasion.

Each State is expected to come with its own products in abundance, so that admiring neighbors shall see what great things the family can accomplish.

We admire you for your greatness and power, and rejoice that you enjoy the pleasures and benefit of the new order of things, the achievements of science, the arts, labor-saving machinery, the railroads and telegraph; but we would not have you forget the old order of things. Your parents did not emigrate to the West in palace cars at the rate of forty miles an hour. Oh, no; their travel was by an entirely different method. The old States contributed much to your wonderful growth. Pennsylvania, Massachusetts and others contributed annually hundreds and thousands of ready-made men and women. You see by this process we are bone of the same bone and flesh of the same flesh. I was not always certain how "empire" could "westward take its course," but I understood exactly what a constant stream of small canvass-covered wagons were to do. I watched with profound interest the empire of numbers, and I think such vast numbers never before settled down in so brief a period.

The Congress of the United States by law passed March 3, 1871, provided for a proper celebration of the completion of the first century of our National existence, prefacing the law with the eloquent reasons so well known. That act provided that the celebration and exhibition should be held "under the auspices of the Government of the United States," thereby bestowing upon the work the national prestige. In June, 1872, Congress passed another law, the preamble to which fully recognizes the importance of "celebrating the centennial anniversary of the Declaration of Independence, by the holding of an international exhibition of arts, manufactures and products of the soils and mines," in Philadelphia. This act incorporated the Centennial Board of Finance, with the usual powers of a corporation, and a capital of \$10,000,000. The Board of Finance was proceeding to raise money under this act when the panic of 1873 arrested all their efforts in this direction. This condition was doubly painful from the fact that the

President, in July, by proclamation, had commended the great international exhibition to foreign governments, and many of them had signified their purpose to take part in it. There was no alternative but to proceed with what we had promised to do, or subject the nation to lasting reproach. The matter was left to the people, and the decision was unanimously in favor of going forward with the enterprise. They would give up the exhibition alone, but they could not turn their backs upon the Declaration of Independence, on the glorious memories of the past, and this forever, for no one now alive can have any part in the second Centennial. We must participate in the first or abandon the idea forever.

Under such auspices and with \$4,000,000 of capital the board began its struggle for success and honor. The main buildings have been contracted for and are now in process of construction; the President's invitation to foreign governments is out, and the great celebration must come off. The Board of Finance have gone before the country with a system of raising money by the sale of shares of stock, which entitle the holder to ownership in the buildings and a share of the profits of the enterprise, and of memorial medals which are imperishable evidence of the fact that the holder did what he could.

Of the benefits of the Exposition, Governor Bigler said such an exhibition would be to our people a lesson they have never enjoyed, and impart to them valuable knowledge of the practical affairs of life. We have gone to far in the matter now to neglect or let it fail. An event of one or the other of these natures would impress all other nations with the idea that we are vain glorious pretenders, and not the most enterprising people on the globe, as we claim to be. American independence and self-government are the events of modern times, and they must be commemorated as becomes a great and prosperous people.



## GOVERNOR POLLOCK'S ADDRESS.

At the conclusion of Governor Bigler's address, Governor Hendricks introduced Governor Pollock, who was received with the same hearty manifestation of good feeling that marked Governor Bigler's reception. He said he could not omit expressing to Governor Hendricks his warmest thanks for the eloquent and hearty introduction of himself and colleagues, as representatives of the great Centennial. He complimented Governor Hendrick's administration of affairs, and complimented the people of Indiana upon having such a man at the head of its government. He said that the assurance within him that the key-note of the Governor's introduction would be re-echoed by every patriotic heart in Indiana, made him feel confident in presenting his remarks on this occasion. I am not, Gov. Pollock said, a member of the Centennial Commission, nor of the Board of Finance. I have no connection with the Exposition, except as a citizen of Pennsylvania and of the United States. I can not pass Independence Hall, with all its associations, that old black bell, nor see the chair in which Hancock sat when the immortal Declaration of Independence received his signature, and the table upon which that precious document rested while it was signed by the men whose signature thereto made them famous, without feeling that I am bound by every consideration to give all my time and energy to the success of that Exposition.

I have no respect for the man who can denounce it as a mere local show. I am here with no man's money in my pocket, and Gov. Bigler is the same; and appeal to the opponents of the scheme, if you can do so well, go and do better. I am here to-day to represent a grand national idea, not a local one. Nearly every man I have met since my arrival in Indianapolis is from the East, or the descendants of Eastern people, and I feel at home with them. Your reception has been such as astounds me; you have been more to us than friends in our own homes, and your

acts of cordiality and friendship will endear you to us. This friendship and idea of home is the grand idea of the Centennial celebration. We are at home everywhere in this land, it is my land and your land, my country and your country. As Governor Bigler has said, we do not invite you to Pennsylvania but ask you to *meet* with us and celebrate the Centennial anniversary of American Independence. What grand thoughts sweep over us as we contemplate the scenes of a hundred years ago, and the men who figured in them! Peace to their memory and honor to their names.

Governor Pollock for some time then addressed himself to the question: "Why should the Centennial be observed?" and for answer said: Because we can there show to the nations of the earth what we have accomplished under free government and by the union of the States; our progress in arts and sciences, in schools and education, and our system of railroads and telegraph lines. The nations of the earth will be astonished when they come and see what we have done. In the course of these paragraphs the Governor gave foreigners some good advice. He said he would welcome with open arms all nations of the earth, but expected that when a foreigner set foot on this shore he would let the mantle of American character cover him, and his citizenship mark his devotion to the land of his adoption. He also alluded to the fact that in 1848, when in Congress, he made the first favorable report upon the project of building a railroad from New York to the Pacific ocean. In conclusion, he urged upon the people of the State to attend and take part in the exposition. He said that Indiana should be represented to show her progress in the sisterhood of States, a progress of which she need not be ashamed.

President Sutherland urged upon the audience the necessity of Indiana making a creditable show at the Exposition, and asked them all to ponder over and act upon the words they had just heard. Upon Governor Hendricks' request, that all who desired to see the Centennial Exposition a grand success should rise, every person in the hall stood up.

## UNVEILING THE "GREAT REPUBLIC."

After the people had expressed themselves upon the Centennial, which closed the meeting in Music Hall, the distinguished visitors entered the hall in which Yvon's "Great Republic" has been exhibited, for the purpose of witnessing the formal unveiling. About one hundred invited guests were present, including the officers of State, State Board of Agriculture and others. To the strains of "America" the curtain was withdrawn. Prof. E. C. Tuttle then read a descriptive address. Pennsylvania being one of the most prominent figures, a fitting response to the ceremony of unveiling and the graceful allusion in the address, was made by Governor Pollock, which closed the exercises of the day.

# REPORT OF PURDUE UNIVERSITY,

FOR THE YEAR ENDING OCTOBER 31, 1874.

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## PRESIDENT'S REPORT.\*

The organization of Purdue University embraces a number of schools of applied science, which are so planned and arranged as to form a compact, though by no means a complete, university system. The formation of these schools has proceeded upon the assumption that our State needs at this time substantial technical education, especially in branches that pertain to agriculture and the mechanic arts. Many parts of Indiana, as well as other Western States, are rapidly deteriorating in the natural productiveness of the soil. The ravages of insects and the frequent occurrence of drouth interfere with the growth of crops more frequently than formerly.

And further, while our State has made commendable progress in the manufacture of the coarser and heavier articles, and those that require no great amount of skill, yet it is true that most of those articles, the principal value of which depends upon the amount of skilled labor required in their construction, are imported from abroad. An inspec-

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\*NOTE.—The following Report from the President of Purdue University was submitted to the Governor, and is included in this report, as containing useful information regarding agricultural education.

tion of our manufacturing establishments will reveal the fact also that those positions that require the most skill, and which consequently command the greatest remuneration, are not filled by the native citizens of our own country, except in the comparatively few cases in which they have gained their special education abroad. It is assumed, therefore, that young men who desire to fit themselves technically to become leaders in these industrial pursuits should not longer be compelled to go elsewhere for their education. The State will manifestly promote her highest interests by providing such technical instruction as will favor the development of greater mechanical skill, a more extended knowledge of our wants in systematic agriculture, and that will provide for us scientists of special attainments whose abilities alone can develop the other varied and untold material resources with which our commonwealth abounds.

The scope of instruction in each of these schools is indicated by a particular course of study. Certain subjects are found in all of the courses, but in each there is a particular study, or group of kindred studies, made more prominent than others, that gives to it its name, or distinguishing characteristic. There are many very desirable subjects not found in any of these courses, for which reason, and also that certain subjects here mentioned may be taught more exhaustively, additional schools are contemplated, and will be organized at an early day. The range of instruction afforded by the Institution will be readily understood by examining the various courses which are herewith presented:

#### COURSE IN AGRICULTURE.

NOTE.—Recitations and lectures occupy each one hour, and the number per week is indicated by the figure following each branch of study.

#### *Freshman Year.*

First Term—Algebra, 5; English Language, 4; Drawing, 2; Physics, 4; Physiology, 3.

Second Term—Algebra, first half; Geometry, second half, 5; English Language, 4; Drawing, 2; Physics, first half; Chemistry, second half, 4; Physiology, first half; Botany, second half, 3.

Third Term—Geometry, 5; English Language, 3; Book-keeping and Drawing, 3; Chemistry, 3; Botany, 3; Elements of Agriculture, 2.

*Sophomore Year.*

First Term—Plane Trigonometry and Surveying, 5; Business Forms, Specifications, Drawing, 3; English Language, 3; Botany, 5; Chemistry, 4.

Second Term—Surveying and Spherical Trigonometry, 5; English Language, 3; Farm Machinery, 4; Chemistry, 4; Botany, 2; Physical Geography, 2.

Third Term—English Language, 3; Geology, 5; Chemistry, 4; Meteorology, 4; Horticulture and Propagation of Trees, 4.

*Junior Year.*

First Year—Logic, 2; Ancient History, 3; Geology, 4; Analysis of Soils, 5; Economic Botany, 2; Land Drainage and Irrigation, 2; Mechanical Cultivation of Soils, 2.

Second Term—Logic, 2; History, 3; Origin of Soils, 1; Natural and Artificial Fertilizers, 2; Propagation, Budding and Grafting of Fruit Trees, and management of Nursery and Orchard, 5; Fences and Hedges, 2; Landscape Gardening, 2; Principles of Farm Management, 3.

Third Term—English Literature, 3; History, 3; Principles of Zoology, 5; Domestic Gardening, Grapes and Small Fruits, 5; Management of Bees, 1; Management of Poultry, 1; Principles of Farm Management, 2.

*Senior Year.*

First Term—Descriptive Astronomy, 3; Constitution

of the United States, 3; Stock Breeding, 3; Entomology, 5; Drawing (Plans and Cost of Farm Buildings,) 3; Stock Raising, 3.

Second Term—Political Economy, 3; Mental Philosophy, 3; History of Cultivated Plants, 2; Comparative Anatomy of Domestic Animals and Veterinary Surgery, 5; Horticulture, Green House, 2; Wintering Stock, 2; Sheep Husbandry, 3.

Third Term—Moral Philosophy, 3; Dairy Farming, 5; Preservation and Marketing of Farm Products, 2; Veterinary Science, 5; Rural Law, 1; Review of Sources of Pleasure and Profit in Farm Life.

N. B.—Students in this Course are required to participate in the experimental operations upon the Farm.

#### COURSE IN CHEMISTRY.

##### *Freshman Year.*

The Studies are the same in the Freshman Year, throughout all the Courses. (See Course in Agriculture.)

##### *Sophomore Year.*

First Term—Plane Trigonometry and Surveying, 5; Business Forms and Drawing, 3; English Language, 3; French, 3; Chemical Theory, 2; General Chemistry (Laboratory Practice), 4.

Second Term—Spherical Trigonometry and Surveying, 5; English Language, 3; French, 3; Chemical Theory, 2; Synthetical Chemistry (Laboratory Practice), 6.

Third Term—English Language, 4; French, 5; Organic Chemistry, 3; Chemical Technology (Laboratory Practice), 8.

##### *Junior Year.*

First Term—Logic, 2; Ancient History, 3; German, 5; Qualitative Analysis, 10.

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Second Term—Logic, 2; German, 3; History, 3; Qualitative Analysis, 10.

Third Term—English Literature, 3; History, 3; German, 3; Qualitative Analysis, 10.

*Senior Year.*

First Term—Descriptive Astronomy, 3; German, 3; Constitution of the United States, 3; General Quantitative Analysis, 11.

Second Term—Political Economy, 3; Mental Philosophy 3; German, 3; General Quantitative Analysis, 11.

Third Term—Moral Philosophy, 3; German, 3; Special Quantitative Analysis, 11.

COURSE IN CIVIL ENGINEERING.

*Freshman Year.*

The studies are the same in the Freshman Year throughout all the Courses. (See Course in Agriculture.)

*Sophomore Year.*

First Term—Plane Trigonometry and Surveying, 5; Business Forms, Drawing, etc., 3; English Language, 3; French, 3; Chemistry or Physics, 6.

Second Term—Spherical Trigonometry and Surveying, 5; Linear Perspective and Isometrical Drawing, 5; English Language, 3; French, 3; Chemistry, or Physics, 4.

Third Term—Analytical Geometry, 5; Descriptive Geometry and Higher Perspective, 5; English Language, 3; French, 3; Chemistry or Physics, 4.

*Junior Year.*

First Term—Differential Calculus, 5; Shades and Shadows, 5; Logic, 2; German, 3; Ancient History, 3; Chemistry or Physics, 2.



Second Term—Integral Calculus, 5; Higher Perspective, Drawing of Bridges, Arches, etc., 5; Logic, 2; German, 3; History, 3; Chemistry, Physics or Geology, 2.

Third Term—Analytical Mechanics, 5; Machine and Architectural Drawing, 3; English Literature, 3; German, 3; History, 3; Industrial Mechanics, or Metallurgy, 3.

*Senior Year.*

First Term—Descriptive Astronomy, 3; Topographical, Mining and Railroad Surveying, 5; Drawing, Mapping Railroad Lines, etc., 5; German, 3; Constitution of the United States, 3.

Second Term—Theory of Motors and Applications, 5; Mechanics, Strength of Materials, 5; German, 3; Political Economy, 3; Assaying, Metallurgy or Geology, 4.

Third Term—German, 3; Moral Philosophy, 3; Planning and drawing some structure in one of the departments of Engineering, with Thesis, Mathematical Analysis and description of it, together with Specifications and Estimates of Cost.

**COURSE IN PHYSICS AND MECHANICAL ENGINEERING.**

*Freshman Year.*

The Studies are the same in the Freshman Year throughout all the Courses. (See Course in Agriculture.)

*Sophomore Year.*

First Term—Plane Trigonometry and Surveying, 5; Business Forms, Drawing, etc., 3; English Language, 3; French, 3; Physics, Mechanical Powers, 6.

Second Term—Spherical Trigonometry and Surveying, 5; Linear Perspective and Geometrical Drawing, 5; English Language, 3; French, 3; Pneumatics and Hydraulics, 4.

Third Term—Analytical Geometry, 5; Descriptive Geometry and Higher Perspective, 5; English Literature, 3; French, 3; Theory of Sound, 4.

*Junior Year.*

First Term—Differential Calculus, 5; Shades and Shadows, 5; Logic, 2; German, 3; Ancient History, 3; Practical Mechanics Instruction in Shop in use of Lathe and Vise, and in Construction of Machinery.

Second Term—Integral Calculus, 5; Higher Perspective, drawing of Bridges, Arches, etc., 5; Logic, 2; German, 3; Ancient History, 3; Application of Electricity, Pattern Making, etc.

Third Term—Theoretical Mechanics, (Analytic), 5; Machine and Architectural Drawing, etc., 3; English Literature, 3; History, 3; German, 3; Physics, Light, and Alloy of Metals.

*Senior Year.*

First Term—Descriptive Astronomy, 3; Physics, Optical Instruments, 5; German, 3; Constitution of the United States, 3; Pattern Making, Moulding, etc., 6.

Second Term—Theory of Motors, including Hydraulics, and Applications, 5; Mechanics, Strength of Materials, 5; German, 3; Political Economy, 3; Electrometry, Work in Shops, 4.

Third Term—German, 3; Moral Philosophy, 3; Correlation of Forces, Work on Dividing Engine, Thesis, etc.,

## POST-GRADUATE AND SPECIAL COURSES.

The Faculty offer to young men desirous of pursuing advanced and special courses the following facilities:

1. A course in Engineering.
2. A course in Natural History.
3. A course in Chemistry.
4. A course in Metallurgy.
5. A course in Physics.

These courses are intended especially for those students who have taken a degree from a literary college, and who

wish to fit themselves for professional efficiency in any one of the above-named departments. Students proposing to enter any of these courses will be examined with special reference to the department chosen, and be assigned to such place in the course as their examinations warrant. Those who sustain satisfactorily the annual examinations for such purpose, will receive appropriate degrees.

Students not candidates for degrees will be received for special instruction in any part of the above courses to which their proficiency would profitably admit them. Students may present themselves at any annual examination for a degree. Residence at the University will not be required. Tabular views of the above courses will be published in the annual announcement.

#### THE COURSE IN AGRICULTURE.

The course in Agriculture, including, as it does, the department of Horticulture and Veterinary Science, embraces a larger number of subjects, and consequently more study than should be required in any one course. It is probable, therefore, that this course will, at an early day, be divided, thereby enabling the institution to include studies not here mentioned, and to treat others more exhaustively. This department of instruction has been prepared with a strong conviction of its importance and its demands. Agriculture is not a simple science founded on one class of facts and one set of laws. It is rather a composite science, embracing a wide range of topics, and these can be most successfully studied in connection with the groups to which they belong. The business of the agriculturist is with plants and animals; with the mechanical powers; with the soil in all of its conditions; with the climate and the atmosphere; with land measuring, road-making, leveling; with business forms, planning and building. These kindred sciences, therefore, which contribute so largely to success in such a calling, should occupy a prominent place in any scheme of instruction which is designed to prepare persons for it. This

course embraces as far as practicable, all of these contributing sciences.

The above scheme includes a knowledge of Botany, first, as a science with its minute observations of the forms, structure, properties, and classification of plants; second, Horticulture, including landscape gardening, the management of the nursery, orchard, vineyard, cold and warm frames; the hot-house, and the domestic garden, extending, also, to arbor culture, the knowledge of timber and timber trees; shade and ornamental trees, and hedges in which the important question of the rate of destruction of our native forests will be discussed, and the proper methods of growing timber-trees, pointed out. Time will also be given to the study of Economic Botany, discussing the sources of vegetable materials used for clothing, food, medicine, shelter, dye-stuffs, tanning, etc.; the sources of the timber and woods used in the structural, domestic and ornamental arts. To these will be added the history of cultivated plants.

In Physical Geography, Geology and Chemistry, the student should learn the conditions upon which depend the distribution of plants and animals; the origin of soils, together with the materials which compose them; the analysis of the plants and soils; the composition, value and treatment of natural and artificial manures.

The study of Zoology should lead to a pretty thorough knowledge of animals. After the principles which form the basis of classification are learned, the student should study the anatomy of domestic animals, their diseases and their medical and surgical treatment. A course of lectures is planned embracing the subjects of stock breeding and raising, the best and most profitable breeds of all kinds of domestic animals, their management, feeding, soiling and winterkeeping; sheep husbandry, milk and dairy farming; the management of poultry and bees.

To this already long list of topics should be added another of much practical importance—the study of Entomology. The study of both useful and injurious insects

demands more consideration than it has heretofore received. The devastation of States by grasshoppers and the annual depredations of insects in forests, orchards, vineyards and gardens, whereby large investments of time and money are almost or entirely lost, make it imperative that the habits of insects be better understood that measures may be devised for staying their devastating effects.

The knowledge of farm machinery, of the planning and constructing of roads, drains, ditches; of surveying and leveling, the planning, making specifications for and estimating the cost of buildings, should be prominent in such a scheme of education. Instruction should also be given in business management of the farm, including the keeping of accounts with crops, stock and persons; the proper management of field crops, rotation of crops, underdraining, the direction and profitable employment of hired labor and machinery, and the transportation and sale of farm products.

The student in agriculture should have the opportunity and be required to engage in experiments with crops after special methods, with new varieties of seeds, different modes of planting and tillage, and with various manures. A detailed and exact account of such experiments should be required in which an exhibit is made of all items of expense and results of profit or loss.

The following books are in the reference library, and are always accessible to the student: Waring's *Elements of Agriculture*; Loudou's *Encyclopaedia of Agriculture*; Andrew's *Agricultural Engineering*; Weiderman's *Beautifying Country Homes*; Allen's *Rural Architecture*; French's *Farm Draining*; *Comparative Anatomy and Physiology of Vertebrates*, (Owen, 3 vol.); Harris' *Insects Injurious to Vegetation*; *Guide to the study of Insects*, Packard; *American Weeds and useful Plants*; Randall's *Sheep Husbandry*; Flint's *Cows and Dairy Farming*; Guenon's *Treatise on Milch Cows*; Allen's *American Cattle*; Dadd's *Cattle Doctor*; Warder's; *Evergreens and Hedges*; Warder's *American Pomology*; Bonner's *Method of Making Manures*;

Dana's Muck Manual; Frank Forester's Fish and Fishing; Langstroth, on the Honey Bee; Quinby's Mysteries of Bee-keeping; Wright's Illustrated Poultry Book; Hooper's Book of Evergreens; Bryant's Forest Tree Culturist; Fuller's Forest Tree Culturist; Fuller's Grape Culturist; Fuller's Small Fruit Culturist; Fuller's Strawberry Culturist; Fuller's Peach Culturist; March's Man and Nature. In addition to these works, the student in Agriculture will have the use of the works in the library on Chemistry, Geology, Mineralogy and Botany, Physics, Mechanical and Civil Engineering, Architecture and Drawing.

#### THE COURSE IN CHEMISTRY.

The course in Chemistry extends through four years. In the Freshman year instruction is given to all the students of the University in Chemical Physics and general Chemistry. In the Sophomore year the student begins laboratory work and proceeds to investigate a great variety of problems in Chemistry for himself. The work of this year is chiefly in principles of Chemistry, Synthetical Chemistry and Chemical Technology. The student is expected to spend from two to four hours per day in laboratory work.

In the Junior year are given the methods of general qualitative analysis and separation. After methods of separation and proof have been mastered the remaining portion of the year will be given to the actual analysis of mixtures, liquids, and solids, prominence being given to such analyses as are of especial value to the Agriculturist and Metallurgist.

In the Senior year the student will engage in quantitative determinations. Attention will be given to both gravimetric and volumetric estimation, and when practicable both methods will be used with the same substance. The exercises will be varied and so far as possible typical, so that at the end of the course the student will be competent to enter at once the profession of chemistry, whether as a teacher, manufacturer or general analyst.

Reference Books: Miller's Chemistry, 3 vol.; Watt's Chemical Dictionary, 5 vol.; Fresenius' Quantitative Analysis; Fresenius' Qualitative Analysis; Galloway's Qualitative Analysis; Rose's Quantitative Analysis; Cooke's Chemical Philosophy; Wagner's Chemical Technology; Plattner's Blow Pipe Analysis; Bloxom's Chemistry; Attfield's Chemistry; Fowne's Chemistry, etc., etc.

#### COURSES OF ENGINEERING.

By reference to these courses it will be observed that they contain, in addition to the studies common to all, several branches in higher mathematics, both pure and applied; a more extended course in drawing and such branches of natural science as they properly embrace. They are intended to meet the wants, not only of students who can remain but a short time in the institution, but also of those who desire to qualify themselves thoroughly for civil engineers, or for responsible positions in manufacturing establishments. For this purpose especial attention is given to the mathematical analysis of problems in mechanics and the various forces applied to useful purposes, and to mechanical, topographical, and architectural drawing. Students in surveying and civil engineering will be required to become proficient in the use of engineering instruments in running out ideal railroad lines, laying out curves, determining amounts of excavation and embankment, drafting bridges, calculating materials and cost, and writing specifications, etc. Lafayette, with its surrounding country, its railroads, bridges, and manufacturing establishments, affords many convenient practical illustrations of the subjects taught in these courses.

Elementary instruction in the different branches of Natural Philosophy, as Mechanics, Hydrostatics, Pneumatics, Sound, Light, Heat, Electricity, and Magnetism, will be given to first-year students in all departments of the institution. Each branch will be taught by means of recitations, lectures, and experimental illustrations, the modes

varying to suit as far as practicable the wants of each student. Each one will be required to make himself familiar with the use of apparatus, and by his own experiments develop the underlyings, principles, and physical laws which they are designed to illustrate. To the Sophomore class, in the departments of engineering, more advanced instruction will be given in these subjects. Especial attention will be given to the various modifications and uses of machines, modes of producing and directing motive power, and in the theory of sound. In the junior year, in mechanical engineering, instruction will be given in the construction and use of lathes, screw cutting, and cutting engines, also in the alloy of metals. More advanced instruction will be given to this class in light and in the applications of electricity. Students in the senior year will be instructed in the modes of constructing, adjusting, and using optical instruments, also in electricity and in the use of the dividing engine. Special attention will be given to the subject of the Correlation and Conservation of Forces. Every student in the department will be required to devote a reasonable amount of time to work in the University shops.

Drawing is pursued to a greater or less extent in all the courses. Free-hand drawing is given at the beginning in order to train the eye to habits of close observation, and the hand to freedom and precision of movement. This affords a good preparation for future attainments in object drawing, sketching and designing, and for proficiency in geometrical, topographical and higher perspective drawing, when the student has mastered descriptive geometry, and the mathematical investigation of shades, shadow and linear perspective.

The proper development of the great resources of our State, by encouraging and fostering those mechanical pursuits requiring skilled labor, demands that special prominence shall be given to this study, so important to the architect and draftsman, by this the only industrial educational institution under the control of the State.



It will be observed that no special courses have been arranged for mining engineering and architecture. The studies required as a preparation for these are so nearly identical with those of civil and mechanical engineering, that it is thought unnecessary at present to adopt distinct courses for them. Students in mining engineering will, however, be required to pay special attention to Metallurgy and Geology; and those in Architecture to its study and to architectural drawing.

Books of Reference.—Appleton's Dictionary of Mechanics, Engine Work and Engineering; Chambers' Encyclopedia; Silliman's American Journal of Science, 100 volumes; De Schaunel's Physics; Practical Hydraulics; Blake's Mining Machinery, etc.; Byrne's Elements of Practical Mechanics; Colburn's Locomotive Engineering, etc.; Craik's Practical American Millwright and Miller; Fairbaine's Application of Cast and Wrought Iron to Building Purposes; Haupt's Theory of Bridge Construction; Moseley's Mechanics; Rankin's Civil Engineering; Trautwine's Railroad Curves; Whilder's Strength of Materials; Francis' Hydraulic Experiments; Krepp on Sewerage; Wood's Resistance of Materials; Shaw's Architecture; Warren's Linear Perspective; Warren's Machine Construction and Drawing; Warren's Shades and Shadows; Walter Smith's Free-hand Drawing and Designing, etc., etc.

#### MODERN LANGUAGES.

*English.*—A thorough knowledge of one's own language is deemed of the highest importance; therefore instruction in English forms a proper portion of the work throughout all the courses of study. It is intended that this instruction shall be thorough and comprehensive, so that the students who pass out from the institution will be masters of their vernacular language, especially in its correct and ready use. The instruction in language aims to proceed upon the principle that language is the expression of thought; and in order that such instruction may be most effective, it must be

based primarily upon thought, and secondly upon proper expression, to the end that the student may learn to think, speak and write readily and correctly. The language work of the Freshman and Sophomore years embraces elementary instruction in Mental Science, which subject is commenced with the Freshman year and continued throughout the entire course as an important part in the intelligent and successful study of language. During these first two years the instruction embraces a careful review of the form and meaning of words, construction and analysis of sentences, punctuation, and the correction of false syntax. The advanced work embraces the writing of letters, business forms, specifications, simple legal papers, exercises in description and narration, and essays upon various subjects. All of these exercises are required as regular recitations, subject to the criticisms of class and teacher. The work of the Junior and Senior years is intended to enlarge upon the abilities of the student as gained in the first two years, and to lead him into the study of Logic, the art of Discourse, Debates and Literature. The writing of criticisms and essays upon subjects connected with the student's chosen line of work, together with the writing of Theses, will form an important part of the work of the last two years.

*French and German.*—Students in any of the courses, except those in Agriculture, are required to spend at least one year upon French, and two upon German. It is intended that these languages shall be pursued to such an extent and with such thoroughness, that students may read them readily. This is necessary, since the principal scientific works in French and German have no English translation, which works form an important part of the literature of science.

*Books of Reference.*—Chambers' Cyclopædia of English Literature; Taine's History of English Literature; Lectures on English Language, Marsh; English Literature and Language, Craik; Science of Language, Muller; Lan-

guage and the Study of Language, Whitney; Worcester's Unabridged Dictionary; Webster's Unabridged Dictionary; Andrew's Latin-English Lexicon; Adler's German Dictionary; Spier and Surrenne's French Dictionary; Lippincott's Pronouncing Gazetteer of the World; Lippincott's Biographical Dictionary; Allibone's Dictionary of Authors; Porter's Human Intellect, etc.

#### NATURAL HISTORY.

The instruction in Natural History embraces a full course in Botany, Mineralogy, Geology and Zoology.

The instruction in this department will be adapted to advanced students, graduates of other colleges, and to those fitting themselves for professional work.

The cabinet already contains a large amount of material to illustrate these subjects. This collection will be augmented rapidly.

The herbarium already embraces a large collection of dried specimens from forest and field.

There is also a large collection of our native woods in the cabinet.

Books of Reference.—Wood's, Gray's, Youman's, Greene's, Chapman's, text books on Botany; Henslow's Botanical Charts; the Prodomus of DeCandolle (full); Icone's Muscorum of Sulliveant; Micheaux's and Nuttall's American Sylva (5 vols.); bound volumes of American Naturalist; Lyell's Principles of Geology; Dana's Manuel of Geology; Nicholson's Manuel of Geology; State and National Government Geological Surveys and Explorations; Nicholson's Biology; Dana's Manual of Mineralogy; Packard's Guide to the Study of Insects; Comparative Anatomy and Physiology of Vertebrates, Owen (3 vols.); Annals of Scientific Discovery (complete); Silliman's Journal (100 vols.); Coral and Coral Islands, Dana; Flint's Physiology (5 vols.); Carpenter's Physiology; How to Work With the Microscope.

#### ORCHARDS, ORNAMENTAL TREES, AND BOTANIC GARDEN.

The ground has all been platted, a portion has been set apart for a Botanic Garden and other portions to orchards,

grapes, small fruits, etc. The land to be devoted to an orchard has already been partially set in trees. The remainder it is expected will be planted next spring, as will also the space devoted to small fruits, grapes, etc. To these will be added nurseries of ornamental and native forest trees.

There is a large number of shade and ornamental trees in the College nurseries, probably ten thousand in all, ready to be transplanted to the grounds in the early spring. Work on the Botanic Garden should be commenced at the earliest practicable moment. One thousand dollars has already been donated for the purpose of building a Plant Conservatory and Hot House in connection with this garden.

#### ATTENDANCE OF STUDENTS.

The institution, as directed by the Board of Trustees was opened for the reception of students September 16, 1874, The entrance examinations were held Thursday and Friday, September 17th and 18th. Thirty-nine applicants were present at these examinations, and all were admitted, a few conditionally. Nineteen have since been examined for admission, of which number seven failed, and five of those conditioned at the opening have already failed to pass satisfactorily the test examinations, consequently have been retired from the roll, leaving at this date forty-six students in attendance.

A. C. SHORTRIDGE

President.

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#### SECRETARY'S REPORT.

To A. C. SHORTRIDGE,

President of Purdue University :

SIR :—I have the honor, as Secretary of the Trustees of Purdue University, to submit to you the following report.

I appreciate your suggestion that it is desirable that the General Assembly of Indiana, now soon to convene, should be fully informed of the past history of the institution and its present condition, and shall endeavor to meet the requirements of the case, although I may be led into some prolixity in doing so:

#### LEGISLATIVE HISTORY.

"Purdue University" is the corporate name of the institution which in this State represents the system of colleges originating in the act of Congress of July 2, 1862. The object of that act, as expressed by its title, was "to donate public lands to the several States and Territories which may provide colleges for the benefit of agricultural and the mechanic arts." The act assumes to grant to each State an amount of public lands equal to thirty thousand acres for each of her Senators and Representatives in Congress, but in fact the donation *in land* is not outright unless the land can be obtained out of the public domain within the State. When this can not happen the State takes *land scrip* for the deficiency, whether it be total or in part. By an anomalous condition of the mother law, which has never been modified, the State receiving scrip is forbidden to locate it herself, but her assignee may. Indiana, being considered as having no public lands within her borders, obtained her donation in *scrip*, amounting to 390,000 acres; her delegation in the two houses of Congress then numbering thirteen.

The scrip was delivered to the State, and by her received. Its acceptance imposed upon the State a grave and exceedingly important trust. The following sections of the mother act will best indicate this:

"SECTION 4. And be it further enacted, That all moneys derived \* \* \* \* from the sale of land scrip hereinbefore provided for, shall be invested in stocks of the United States, or of some other safe stocks, yielding no less than five per centum upon the par value of said stocks, and that the moneys so invested shall constitute

a perpetual fund, the capital of which shall remain forever undiminished, except so far as may be provided in section 5 of this act, and the interest of which shall be inviolably appropriated by each State, which may take and claim the benefit of this act, to the endowment, support and maintenance of at least one college, where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such a manner as the Legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life.

"SECTION 5. And be it further enacted, That the grant of land and land scrip, hereby authorized, shall be made on the following conditions, to which, as well as the provision hereinbefore contained, the previous assent of the several States shall be signified by legislative act.

"First. If any portion of the funds invested as provided by the foregoing section, or any portion of the interest thereon, shall, by any action or contingency, be diminished or lost, it shall be replaced by the State to which it belongs, so that the capital of the fund shall remain forever undiminished, and the annual interest shall be regularly applied without diminution to the purposes mentioned in the fourth section of this act except that a sum not exceeding ten per centum upon the amount received by any State, under the provisions of this act, may be expended for the purchase of lands for sites, or experimental farms, whenever authorized by the respective Legislatures of said States.

"Second. No portion of said fund, nor interest thereon, shall be applied, directly or indirectly, under any pretence whatever, to the purchase, erection, preservation, or repair of any building or buildings.

"Third. Any State which may take and claim the benefit of the provisions of this act, shall provide, within five years at least, not less than one college, as provided in the fourth section of this act, or the grant to such State shall cease and

said State be bound to pay the United States the amount received of any lands previously sold, and that the title to purchase under the States shall be valid.

"Fourth. An annual report shall be made regarding the progress of each college recording any improvements and experiments made, with their cost and result, and such other matter, including State industrial and economical statistics as may be supposed useful, one copy of which shall be transmitted by mail free, by each, to all other colleges which may be endowed under the provisions of this act, and also one copy to the Secretary of the Interior.

"Fifth. When lands shall be selected from those which have been raised to double the minimum price in consequence of railroad grants, that they shall be computed to the States at the maximum price, and the number of acres proportionately diminished.

"Sixth. No State, while in a condition of rebellion or insurrection against the Government of the United States shall be entitled to the benefits of this act.

"Seventh. No State shall be entitled to the benefits of this act unless it shall express its acceptance thereof by its Legislature within two years from the date of its approval by the President."

The section last quoted provides, as will be seen, that States desiring the benefit of the act must express their acceptance of the same within two years from the date of its approval; which approval occurred on the 2d of July, 1862. As the act itself in the progress of its passage had not attracted general public attention, it might have escaped the notice of our next General Assembly [which met in January, 1863]; but Governor Morton's attention having been drawn to it by a delegation of citizens of Tippecanoe county, who visited him in the interest of the Battle Ground, he sent a special message to the Legislature, and this gave the subject publicity, and brought into the field several other applicants for the location. In the general rivalry that ensued the session of 1863 ended without any action on

the part of the General Assembly. As the act of Congress required an acceptance within two years from July 2, 1862, and as the next regular session of our Legislature could not convene before January, 1865, this omission in 1863 might have proved disastrous to the State had not an auxiliary act of Congress, passed on April 14, 1864, extended the acceptance to delinquent States for two years longer. Accordingly, during the session of 1865 [March 6] the Legislature of Indiana passed its act accepting the national donation and organizing a Board of Trustees for the management of the trust funds, to be known by the corporate name of *The Trustees of the Indiana Agricultural College*.

This Board was authorized to sell the land scrip allotted to the State, which it did April 9, 1867, realizing \$212,238.50. This fund, by careful husbandry and a continual reinvestment of its accruing interest, has accumulated until it now sums up to about \$365,000.00. It is invested in interest-bearing United States government bonds, and its accretions are rising steadily from day to day. This, under the act of Congress, is purely an *endowment fund*. It is true one-tenth might be used for the purchase of lands, but this has not been attempted in this State.

The act of 1865 had been passed as a compromise, to save the national donation from forfeiture, after nearly the whole session had been consumed in an obstinate struggle between the rival localities for the site. Hence, it will be noticed, the act makes no provision for the location of the college, but simply accepts the scrip and settles its management. The general sessions of 1867 and 1869 failed to settle the location, and the old act of 1865 stood as the only State statute in relation to the Agricultural College until May 6, 1869, during the special session of that year, when an act was passed accepting a donation of \$150,000, which had been tendered under specified conditions by John Purdue, of Lafayette, and also a donation of \$50,000, tendered by Tippecanoe county. In the meantime Congress had extended the days of grace to States in arrears to July 4,



1872. And further acts of extension have been passed since then.

The act of May 6th converted the corporate name of the existing board from "The Trustees of the Indiana Agricultural College" into "*The Trustees of Purdue University*," and gave the name of "*Purdue University*" to the institution itself. As the act may be considered the State foundation upon which the present University rests, I give it in full :

"SECTION 1. Be it enacted by the General Assembly of the State of Indiana, That the donations offered by John Purdue, as set forth and communicated to the present General Assembly in the message of the Governor on the 16th day of April, 1869, and the donations offered by the county of Tippecanoe, and the Trustees of the Battle Ground Institute, and the Trustees of the Battle Ground Institute of the Methodist Episcopal Church, as set forth and communicated to the General Assembly at its last session, in the message of the Governor of the twenty-seventh day of January, 1869, be and the same are hereby accepted by the State of Indiana.

"SECTION 2. The college contemplated and provided by the act of Congress, approved July 2, 1862, entitled 'An act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts,' is hereby located in Tippecanoe county, at such point as may be determined before the first day of January, 1870, by a majority vote of the Trustees of the Indiana Agricultural College; and the faith of the State is hereby pledged that the location so made shall be permanent.

"SECTION 3. In consideration of the said donation by John Purdue, amounting to \$150,000, and of the further donation of one hundred acres of land appurtenant to the institution, and on condition that the same be made effectual, the said institution, from and after the date of its location as aforesaid, shall have the name and style of "*Purdue University*," and the faith of the State is hereby pledged

that said name and style shall be the permanent designation of said institution, without addition thereto or modification thereof.

"SECTION 4. From and after the date of the location made as aforesaid, the corporate name of the Trustees of the Indiana Agricultural College shall be "The Trustees of Purdue University," and they shall take in charge, have, hold, possess and manage all and singular, the property and moneys comprehended in said donations, as also the fund derived from the sale of the land scrip donated under said act of Congress, and the increase thereof, and all moneys or other property which may hereafter at any time be donated to and for the use of said institution. They shall, also, have power to organize said university in conformity with the purposes set forth in said act of Congress, holding their meetings at such times and places as they may agree on, and a majority of their number constituting a quorum. They shall provide a seal; have power to eject all professors and teachers, removable at their pleasure; fix and regulate compensations; do all acts necessary and expedient to put and keep the said university in operation, and make all by-laws, rules and regulations required or proper to conduct and manage the same.

"SECTION 5. In further consideration of his said donation, John Purdue shall, from and after the taking effect of this act, be added as a member to said Trustees of Indiana Agricultural College, and he shall also be a member of the said Trustees of Purdue University; should he at any time cease to be such member, he shall be continued as an advisory member of said Trustees, and he shall, during his lifetime, have visitorial power for the purpose of inspecting the property, real or personal, of said University, recommending to the Trustees such measures as he may deem necessary for the good of the University, and investigating the financial concerns of the corporation. And he is authorized to make report of his examination, inspection and inquiries to the General Assembly at any session thereof.

"SECTION 6. This act shall be subject to future amendment or repeal, except so far as it provides for the acceptance of donations, the location of the College, and the name and style thereof, and the rights and privileges conferred upon John Purdue.

"SECTION 7. An emergency existing for the immediate taking effect of this act, the same shall be in force from and after its passage."

The *Battle Ground* donations mentioned in this act were tendered on condition that the University be located at that point. The *county* donation simply required that the location should be within the county. It was fixed by the Trustees on a 100 acre tract near Chauncey, donated by citizens of that town and its vicinity. But since that event the domain has been enlarged by the purchase of eighty-six and a half acres lying north of the first tract, and it is upon this that the Trustees have erected the large and attractive buildings in which the institution has taken a start in its career of education.

#### THE TRUSTEESHIP.

The act of March 6, 1865, accepting the Congressional donation, the Governor appointed, for the time being, Alfred Pollard of Gibson, Smith Vawter of Jennings, Henry Taylor of Tippecanoe, and Lewis Burke of Wayne, and their successors, a body corporate under the name of the Trustees of the Indiana Agricultural College, the Governor being *ex officio* President, and the Board filling vacancies by its own vote.

The first meeting of this Board was held on October 20, 1865, Governor Morton presiding. Prior to that time, Mr. Pollard had moved from the State, so at this meeting, Isaac Jenkinson of Allen county was elected his successor. At the same time, John J. Hayden of Marion county was elected Secretary of the Board, and James E. Reeves of Wayne, Treasurer. Mr. Reeves resigned on the 1st of

May, 1866, and was succeeded by E. B. Martindale of Indianapolis.

The Board so constituted, with its officers, remained in office without a change of membership until March 7, 1870. It was this Board who, on April 9, 1867, effected a sale of the land scrip for \$212,238.50, and during whose term the act of May 6, 1869, became a law. It was to this Board also that Mr. Purdue, on December 22, 1869, reported his deed for the one hundred acres which he had guaranteed should be donated in addition to his \$150,000.

On March 7, 1870, Mr. Hayden, as Secretary, and Mr. Martindale, as Treasurer, resigned. M. L. Pierce of Lafayette was elected to succeed both as Treasurer and Secretary. At the same time, Mr. Pierce was elected a Trustee to succeed Mr. Jenkinson, whose term had expired; the Rev. Thomas Bowman of Greencastle to succeed Mr. Vawter, whose term was also out, and Dr. Joseph F. Tuttle of Crawfordsville to fill the unexpired term of Mr. Lewis Burke, who had resigned. Mr. Purdue had by this time, by Legislative act, become a member of the Board.

On November 21, 1870, Dr. Tuttle and Henry Taylor resigned, and their vacancies were filled respectively by John R. Coffroth and John A. Stein of Lafayette. On January 4, 1871, Mr. Stein was elected Secretary. By subsequent re-election, Mr. Pierce has remained Treasurer, and Mr. Stein Secretary, to this day.

By the act of the General Assembly of January 31, 1871, the membership of the Board was increased. Three members of the State Board of Agriculture, to be appointed by the Governor on the recommendation of that Board, were added. The gentlemen first appointed under this law, were I. D. G. Nelson, of Fort Wayne; John Sutherland, of Laporte, and L. A. Burke, of New Harmony. Mr. Sutherland still remains in office. Mr. Nelson resigned in the early part of 1874, and Austin B. Claypool, of Connersville, was appointed his successor. Mr. Burke resigned on June 2, 1874, and his vacancy has not yet been filled by the State Board of Agriculture.

Dr. Bowman resigned on May 6, 1873, and the Trustees elected Judge H. P. Biddle, of Logansport, his successor. The latter resigned on the 11th of November following, and Col. B. C. Shaw, of Indianapolis, was chosen in his stead. Colonel Shaw resigned on the 20th of October, 1874, and the vacancy thus occasioned still remains unfilled.

The Board of Trustees, therefore, as now constituted, consists of the following gentlemen :

Governor T. A. Hendricks, *ex officio* President.

John Purdue, of Lafayette.

M. L. Peirce, of Lafayette, Treasurer.

J. R. Coffroth, of Lafayette.

J. A. Stein, of Lafayette, Secretary.

John Sutherland, of LaPorte.

Austin B. Claypool, of Connersville.

It should be added that Governor Morton and Governor Baker, respectively, while occupying the Executive chair, officiated as Trustee and President *ex officio* of the Board.

#### SITE.

On December 22, 1869, the University was definitively located by, the Trustees, and the new title of "The Trustees of Purdue University" adopted. The site selected was an oblong, rectangular tract of one hundred acres, lying one mile west of Lafayette. A contiguous tract of eighty-six and a half acres has since been added by purchase. The grounds occupy a part of an elevated plateau which itself is a second bank, or terrace, west from the Wabash, river. The location is one of great beauty on account of the extensive horizon and picturesque scenery which it commands. The rural and the urban are in agreeable contiguity; the first as shown in the immediate surroundings and the distant prospects of the elevated plains of the West; the second as displayed in a panoramic view of the city of Lafayette, expanded all along the Wabash river and climbing up and over a background of hills to the east.

A gravel road running westward from the river separates the one hundred acre tract donated from the eighty-six and

a half acre tract purchased. The latter tract, lying north of the road, has been chosen as the site for all the buildings which the Board has had erected thus far. They have held in reserve the one hundred acre tract as best adapted for the location of the main University building and structures, such as conservatories, chapel, museum, etc.

#### THE BUILDINGS.

The buildings which have been erected, and all of which are now in use, consist of a boarding house, dormitory, laboratory, boiler and gas house, all of brick, a frame military hall and gymnasium, a frame stable with shed, and a frame work shop. All these are to the north of the gravel road and are grouped at distances of from two hundred to six hundred feet from each other. The boiler and gas house occupying an approximately central position, and furnishing steam and gas to the boarding house, dormitory, and laboratory. The Boarding House is for the accommodation of such of the students as prefer to obtain their board on the grounds, as also to provide quarters and board to such of the faculty as may with their families desire to avail themselves of its conveniences. It is a brick building in the Italian style, about 120 feet front by 68 feet deep; flanked by a tower at each of the two front angles. The plans for this house were prepared by James K. Wilson, an accomplished architect of Cincinnati, and in their details provide for a very complete system of internal accommodation.

The Laboratory is a smaller building, but ample in all its parts and admirably provided for its purposes. It is nearly a counterpart of the laboratory of Brown University, of Rhode Island, after the plans of which it was built. A collection of fossils, minerals, etc., purchased from Mr. Richard Owen, late President of the institution, occupies one of the rooms of the building until such time as a special museum building may be erected.

The Dormitory is a spacious quadrangular edifice, of a plain exterior, four stories high, and is intended to furnish lodgings and study quarters to students desiring the same there. It is heated by steam and lighted by gas, and its ventilation has been well provided for. Bathing accommodations occur in each end of all the stories. The rooms are arranged in groups of three, two being sleeping rooms and the third a study room. The building can conveniently and very comfortably accommodate one hundred and twenty-five students.

The Boiler and Gas House is a completely arranged establishment and has all the facilities required for the generation of an adequate amount of steam and gas for the use of the adjacent buildings. It is provided, further, with an engine and force-pump, by means of which, in connection with the necessary shafting, all the power necessary for forcing water, and for work-shop and experimental purposes, is obtained. In connection with this building, should be mentioned its appurtenant purifying-house and gas-holder, the latter having capacity for nine thousand cubic feet of gas, and both constructed upon the most accepted modern principles.

The Military Hall and Gymnasium is a frame structure, one hundred by fifty feet, one story high, and somewhat resembling in its exterior an ornamental railroad passenger depot. It is intended to furnish facilities for gymnastic exercises and military drill, and will be found admirably adapted to its purposes.

The Barn and Shed forming a compact and connected building, has been but recently finished. It is ornamental in appearance and very convenient and commodious in its internal arrangement.

The frame work-shop is a plain and small building erected for temporary use while the other buildings were in process of construction. The present intention is to convert it, by proper alterations, into a residence for the engineer in charge of the boiler and gas-house.

It should be added that in addition to the foregoing enumerated buildings, a small brick residence and barn were put upon the one hundred acre donation several years since by Mr. Purdue. These have recently been put into the possession of the Farm Superintendent, Maj. L. A. Burke.

I am not prepared to say, not having official custody of the data, what the precise cost of the foregoing buildings have been, but can state the same approximately as follows:

Boarding house.....	\$37,807 07
Laboratory .....	15,000 00
Dormitory.....	32,000 00
Military hall and gymnasium.....	6,410 47
Boiler and gas-house.....	4,814 00
Barn with shed.....	1,500 00
Work-shop.....	1,000 00
Dwelling and barn.....	2,500 00

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\$101,031 54

#### DONATIONS.

To meet the heavy expenses incident to the erection of these buildings, etc., the institution has been indebted to the following donations and legislative appropriation; for as before observed, none of the fund realized from the sale of original land scrip, has been applied outside its office as an *endowment* fund:

First. The donation of \$150,000 made by Mr. Purdue. This was stipulated to be paid in yearly installments of \$15,000, and one-half of the gross sum, amounting to \$75,000, still remains to mature.

Second. A donation from the county of Tippecanoe amounting to \$50,000, payable in yearly installments of \$10,000. This has been paid partly in cash and partly by county orders now held by the Treasurer and bearing six per cent. interest.

Third. A legislative appropriation of \$60,000 made by act of 1873; payable (and paid) in instalments of \$30,000 on the first of June, 1873 and 1874.



In the line of donations, it must not be forgotten that divers citizens of Chauncey, (a town adjoining the University grounds,) and its vicinity contributed the one hundred acre tract, afterwards conveyed to the State for the use of the University by Mr. Purdue. Nor must I omit to mention that Mr. Pierce, the Treasurer, has donated his official salary, amounting to six hundred dollars a year, for the time he has served—devoting the moneys to the use of the University as a decoration fund for the purchase and setting out of plants, trees, shrubbery, etc.

#### OPENING OF THE UNIVERSITY.

A variety of causes contributed to retard the erection of the buildings required to start the University; but it has been thought that, in the main, the delays have been to the final advantage of the institution, as giving opportunity for more mature views and a broader plan than that originally contemplated.

In the summer of 1872 the Trustees hoped to be able to so advance their work as to announce an opening for October 1, 1873, but the severe winter of 1872-3, added to other unavoidable drawbacks, interfered. In order to protect the State against any complications with the general government, (the last act of Congress requiring some sort of an opening by July, 1874), a provisional beginning was ordered, and Professor J. S. Hougham took charge of a class on the 2d of March, 1874, and carried the same until June. Subsequently, a formal opening was ordered for September 17, 1874, and on that day began the first regular term of Purdue University, with the following faculty, who had been appointed during the preceding summer:

A. C. SHORTBRIDGE,  
President.

J. S. HOUGHAM,  
Professor of Physics and Industrial Mechanics.

W. B. MORGAN,  
Professor of Mathematics and Engineering.

JOHN HUSSEY,  
Professor of Botany and Horticulture.

H. W. WILEY,  
Professor of Chemistry.

ELI F. BROWN,  
Professor of English Literature and Drawing.

In reference to the Presidency I should say that on the 13th of August, 1872, Professor Richard Owen, then and now occupying a chair in the Indiana State University at Bloomington, had been appointed President; his services to begin upon a three months' notice from the Board. It was then supposed that the Institution would be ready to begin operations at an earlier day, but, for causes already assigned, the event proved otherwise, and on the 10th of March, 1874, Mr. Owen tendered his resignation as President. Yourself were elected his successor on June 12, 1874.

The yearly salaries allowed are \$3,000 to yourself and \$2,000 to each of the professors named, except Professor Brown, who receives \$1,500 per year.

At the time the members of the faculty had their respective chairs assigned, it was further ordered that the departments not so assigned "be, for the present, distributed among the said five professors as the same may be arranged and agreed upon by them and the President." This leads me to remark that at the same meeting, and before the faculty had been assigned, the trustees had ordered that education in the University shall be distributed into the following

## SCHOOLS AND DEPARTMENTS:

## I.

*School of Natural Science.*

- A.—Physics and Industrial Mechanics.
- B.—Chemistry.
- C.—Natural History.

## II.

*School of Engineering.*

- A.—Civil Engineering.
- B.—Mining Engineering.
- C.—Architecture.

## III.

*School of Agriculture.*

- A.—Agriculture—Theoretical and Practical.
- B.—Horticulture.
- C.—Veterinary Science.

## IV.

*School of Military Science.*

In aid and explanation of this scheme, it was duly announced, before the opening, that "a thorough course of Mathematical instruction will be given in the above schools. The German and French languages, also Free-hand and Mechanical Drawing will be prominent studies in the Schools of Natural Science, Engineering and Military Science."

Also that "it is the intention of the Board that the instruction shall be thoroughly practical. To accomplish this, extensive and well selected Engineering, Chemical and Philosophical apparatus has been provided; and the Geological and Mineralogical Cabinets formerly belonging to Dr. Richard Owen have been purchased and placed in the institution. Also an appropriation has been made to purchase books for a reference library."

The following further extracts from the circular announcing the opening of the University, may prove explanatory to those interested :

#### QUALIFICATIONS FOR ADMISSION.

"Candidates for admission must be of good moral character and at least sixteen years of age, and be able to pass a satisfactory examination in Orthography, English Grammar, Geography, Arithmetic, History of the United States, and Algebra to Quadratic Equations.

A preparatory school will, however, be temporarily organized to which students may be admitted, if their proficiency is such as to enable them to pass the entrance examination to a regular course within one year.

#### CALENDAR.

The University will open for the reception of students, September 16, 1874. Examination for admission and classification of students will take place Thursday and Friday, September 16 and 17. First Term will close December 16th, 1874. Second Term will begin January 5, 1875. Second Term will close March 26. Third Term will begin March 29. Third Term will end June 18, 1875.

#### EXPENSES.

Tuition of residents of this State.....	free.
Tuition of residents of other States, per year...	\$20 00
Matriculation fee for full course.....	10 00
Room rent, fuel and light per term.....	5 00
Janitor's Fee and for Incidentals.....	5 00
Board per week.....	3 50
Washing per dozen.....	75

Students who do not board in the institution will be charged for Janitor and incidentals. Rooms in the dormitory are furnished with bedsteads, wash-stands and sets, and chairs. Students must furnish for themselves beds and

bedding. Boarding in private families can be secured at reasonable rates. All bills except for board, must be paid strictly in advance. One-half of the amount for board must be paid in advance for each term. All students intending to enter the institution should make application early, and be present promptly at the opening."

# CONCLUSION.

Since the opening of the institution its educational operations have been under your charge; and of these you will doubtless make report yourself. Treasurer Pierce's report will explain financial conditions. I have only to add, that as matters have progressed thus far, they seem to foreshadow a fine future. We are in the outstart of a scheme of education, which, while it antagonizes no existing form, is a deviation in the line of the practical, and favors applied science. The scientific farmer, mechanic, miner, and engineer, will all have special reason to look to and foster the interests of this institution. The endowment fund, realized thus far from the benefaction of the nation, is large, and for the present, answers all wants; but the equipment of the University, with a proper complement of buildings, and all the accessories of education, incident and peculiar to the institution, requires the present generous aid of the State. I would suggest therefore, that in your report to his Excellency, the Governor, you ask him to submit the propriety of making the following appropriations, as the same have been approved by the Trustees:

For an engineering building and equipments.....	\$30,000
For physical, mechanical, chemical and engineering apparatus.....	20,000
For library, cabinets and museum.....	15,000
For botanical conservatory and garden of plants.....	10,000
For farm house and barn.....	10,000
For stock, utensils, etc.....	15,000
<b>Total.....</b>	<b>\$100,000</b>

As the structures above contemplated should be in process of construction forthwith, and as it is obvious that the scientific equipments, the stock, utensils, etc., are immediate and necessary adjuncts to an establishment such as this, it may be hoped that no serious obstacles will interpose in the way of the required appropriations.

Respectfully submitted.

JOHN A. STEIN,  
Secretary.

### TREASURER'S REPORT.

A. C. SHORTRIDGE,

President of Purdue University:

Below please find statement of the expenditures for the University.

Farm house, barn, and foundation of main building, etc.....	\$ 9,518 74
Contract price of Dormitory.....	32,000 00
Contract price of boarding house...	33,809 17
Contract price of laboratory.....	15,000 00
Contract price of military hall.....	6,410 47
Contract price of boiler house.....	4,814 00
Contract price of kitchen addition, etc.....	3,997 90
Gas works, wells, boilers, engines, pumps, heating apparatus, building cost of pipe and laying over 13,000 feet for drain, water pipes, steam and gas pipe, cistern, etc., etc., bills which have not been separated for full report.	34,009 35

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\$139,559 63

Paid L. A. Burke, as per audited  
accounts, and expended by him as  
follows :

Live stock.....	\$526, 00
Farm implements.....	265 01
Farm improvements.....	996 37
Farm, labor and supply.....	762 80
Farm Superintendent.....	375 00
Furniture, dry goods, carpets, range, tinware, etc., etc.....	2,478 19
Supplies for boarding.....	527 96
Boarding house servants.....	196 50
Dormitory janitor.....	24 00
Freight, drayage and postage.....	87 15
Improvements on College grounds, wells, sewers, grading, ditches, etc	4,387 65
	<hr/>
	\$10,626 60

Cost of 86½ acres of land purchased \$ 26,500 00

Due within 30 days on work in  
progress, about..... 10,000 00

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\$36,500 00

Total expenditures..... \$186,686 23

#### TOTAL EXPENDITURE.

County Orders in Treasurer's hands \$23,000 00

On which Treasurer has advanced 12,000 00

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\$11,000 00

Amount due mechanics..... 10,000 00

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Balance..... \$1,000 00

Due from John Purdue on his  
donation \$15,000 on 1st of May,  
1875, and each succeeding first  
of May for the next five years...

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\$75,000 00

Ag. R.—10

Value of entire donations other than from the  
United States:

From John Purdue, \$15,000 per year for ten years from May 1, 1870.....	\$150,000 00
From Tippecanoe county, \$10,000 per year for five years from May 1, 1870.....	50,000 00
Citizens near location, 100 acres land.....	30,000 00
State of Indiana June 1, 1873.....	30,000 00
State of Indiana June 1, 1874.....	30,000 00
Total.....	\$290,000 00

Funds derived from U. S. Land Scrip for endowment:

U. S. Registered 5-20 Gold Bonds at 6 per cent. interest.....	\$250,000 00
U. S. Registered Currency Bonds at 6 per cent. interest.....	50,000 00
Interest in Treasurer's hands.....	4,690 42
The currency value at this date, October 27, 1874, of the U. S. Fund .....	356,502 92
The currency value, of this fund on April 9, 1867.....	212,238 50
Increase in value.....	\$144,264 42

A friend has paid into the treasury \$1,000 with which to start a plant house and conservatory, and has donated about 10,000 tree sets, now in nursery form with which to reset and beautify the college grounds.

Respectfully submitted.

M. L. PIERCE,

Treasurer.



## SUPERINTENDENT'S REPORT.

PRESIDENT A. C. SHORTRIDGE:

SIR:—I have the honor to submit my report of Farm operations for the past season. April 1, 1874, I was called to the position of Farm Superintendent, also to take charge of all improvements of grounds, etc. Owing to the limited time given to the Farm I am unable to report the results of any thing more than common Farming. The following will show the results of the season's work:

Agricultural Farm.	Dr.	
To labor, oats ground.....	\$91 00	
To seed oats.....	35 00	
To threshing, cutting, etc....	42 72	
To labor, corn ground.....	90 00	
To harvesting corn.....	40 00	
To harvesting hay.....	175 00	
To labor in garden .....	30 00	
To seed potatoes, etc.....	20 00	
To feed, hay, corn and oats...	127 05	
To blacksmithing .....	19 00	
		\$669 77
Agricultural Farm.	Cr.	
By 474 bushels oats at 40 cents.....	\$182 60	
By 30 bu. tomatoes at 50 cts.....	15 00	
By 7 bu. sweet potatoes, \$1.....	7 00	
By 110 bu. potatoes.....	99 00	
By 500 heads cabbage.....	25 00	
By 50 tons hay, \$12.....	600 00	
By 800 bushels corn, 50 cents.....	400 00	
By pasturage.....	91 00	
		\$1,419 60
		669 77
		\$749 83

L. A. BURKE,  
Farm Supt.

PURDUE UNIVERSITY, Oct. 20th, 1874.

## PUBLIC SCHOOLS AND THE EXPOSITION.

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TERRE HAUTE, Nov. 16, 1874.

HON. JOHN SUTHERLAND,

President of State Board of Agriculture:

The failure of the Public Schools of Indiana to respond to the invitation of the late honored Superintendent of Public Instruction, to compete among themselves in the late Exposition for excellence in the different grades taught in the schools, was caused more for want of time and necessary preparation than from any other cause. The teachers did not fairly understand the call. The Terre Haute Schools only responded, I believe, and this brings to my mind the importance of giving a more thorough notice for the future. I should be rejoiced to see every school district in the State represented in honorable competition at the annual Exhibitions at the Capital. And not only that, but I beg leave to suggest that some of the older classes in each locality visit, in a body, annually, the Exposition, and there learn the progress making in Agriculture and the Mechanic Arts. The young would be instructed, and the great industries of the State brought in review before them.

The following letter from Prof. W. H. Wiley, the able and accomplished Superintendent of the Public Schools of Terre Haute, will show how this *competition* can be inaugurated, and how useful it can be made in creating an interest in the cause of popular education in the State. I beg leave to suggest that two or three pages of our next report be devoted to its publication, as a short means of indicating how a permanent scholastic competition, in our future Expositions, may be inaugurated.

Very truly,

THOS. DOWLING,

Member State Board Agr'l. Eighth District.

TERRE HAUTE, IND., Nov. 12, 1874.

COL. THOMAS DOWLING:

Dear Sir.—The following correspondence, sent to me as an official document by the Superintendent of Public Instruction, the late Hon. Milton B. Hopkins, together with the accompanying letter, will fully explain my authority for preparing and exhibiting certain examinations, papers, maps, drawings, etc., at the Indiana Exposition for 1874:

*To the Superintendents of Public Schools in the State of Indiana:*

GENTLEMEN:—The following correspondence has been recently had between the State Board of Agriculture and this department:

TO THE HON. MILTON B. HOPKINS,

Superintendent of Public Instruction:

SIR:—I am pleased to state that there is now an application on file in this office from the Board of School Commissioners of Indianapolis for space to exhibit specimens of writing and drawing by the scholars at the coming Exposition. This is indeed gratifying, and but carrying out the idea of the Exposition, being a grand examination day of the progress made in the arts and sciences, as well as in manufactures. For the purpose of presenting to the visitors on that occasion so as to give at least an approximate idea of the condition and progress of education within the State, would it not be well to invite a competitive exhibition from the Schools of the State of such results in education that can be presented to their inspection, to-wit: specimens of writing, art and map drawing, and such other matter as may be suggested to you by the different grades in the Schools, not prepared specially for the Exhibition, but to show the progress of the grades during the School year. If you think favorably of the suggestion, the Board will give all necessary aid to make it a feature of the Exhibition.

With much respect, yours truly,

ALEX. HERON,

Secretary.

The following reply was sent from this office to the foregoing communication :

ALEX. HERON,

Secretary State Board of Agriculture :

DEAR SIR:—Your recent favor is before me, its contents have been noted and carefully considered. In reply I have to say that deeming your proposition altogether practicable, and fully sympathizing with you in your efforts to bring the work of the different Schools of our State into close competition, I will forthwith address a circular to the Superintendents of the City Schools of the State, laying the matter before them, and invite such competition. Owing to the lateness of the season, many of the Schools, except in the cities, having already closed, it will be impossible to give the necessary information to many of them in time for the preparation of the work. The details of this work will be carefully set forth in the circular.

The project which you suggest, and for which the School Commissioners of this city have asked, is an experiment, and while we shall not attain all that we desire during the present year, it will be a beginning. It will evidently be impossible to exhibit in the Exposition all the work of the Schools, for this exhibition will be limited necessarily to such as can be made to the eye.

Thanking you and your Board for the favor offered,

I am very truly yours,

MILTON B. HOPKINS,

Supt. Public Instruction.

You will see from the above that the Schools of Indiana have been kindly invited by the State Board of Agriculture to compete among themselves in the forthcoming Exposition, by the production of the actual results of their work in the different grades. This department fully approving the object of the Board, and believing that "competition is the life of trade" in the department of education as well as others, would urge upon you the acceptance of the proposition of the Board, and that you make due and timely preparations for carrying out the objects of the Board in

extending the invitation. The department would suggest that no special examination be had with reference to the exhibition, but that the materials for exhibition be the results of your examinations. You, yourselves, will be the judges of the extent of the practicability of the whole scheme, and upon reflection will discover that your exhibitions on that occasion will necessarily be limited to such as can be addressed to the eye. Some things done in your different grades of work can not be exhibited on such an occasion; others can. Whatever, therefore, is taught in any of your grades of which you can make a satisfactory exhibit to the eye of visitors, will be legitimately within the scope and design of the invitation.

The results of your regular final examinations may be carefully preserved in books bound in such form as you may choose, the work of the different grades being properly classified or collected in separate books for ready reference. In your grades below the intermediate may be exhibited words and sentences in print, words and sentences in script, map drawing, or any other work whatever you do that can be exhibited to the eye. In the intermediate grades you can exhibit penmanship, map-drawing, free-hand drawing, correspondence, and results of examinations in arithmetic and English grammar, so far as the same may be exhibited to the eye. In grades above the intermediate may be shown the results of examinations in English grammar, United States history, physiology, etc. In the High School may be exhibited the results in algebra, geometry, German, Latin, Greek, painting and whatever is taught in the schools that can be properly presented for exhibition as indicated above. Since the object of this competition is to show the regular work of the schools, it is desired that no special preparation be made for the examinations, but let what you exhibit be the ordinary results of your schools obtained in the ordinary way. From the High School you may select fifty per cent. of the examination papers in the different branches represented; from the lower grades twenty-five per cent., in all cases sending the best work for exhibition.

Due notice will be given you of the time and place for the delivery of these books and papers.

MILTON B. HOPKINS,

Supt. Public Instruction.

In accordance with the above, I selected from the High School 50 per. cent of the examination papers in the different branches represented, and 25 per cent. from each of the lower grades. These papers were bound into the following named books:

Papers of High School.....	4 books.
Arithmetic and Botany.....	3 books.
Geography .....	3 books.
Copy-books .....	5 books.
History and Grammar.....	1 book.
Arithmetic and Grammar.....	1 book.
Arithmetic, Physiology and Language... Work.....	2 books.
Language Work.....	3 books.
German.....	1 book.
Music, Letters, and Physiology.....	1 book.
Maps.....	2 books.
Drawing.....	1 book.
Third Year Grade Work.....	1 book.
First and Second Year Grade Work....	1 book.

Total..... 29 books.

These books show very fairly what can be done in the Terre Haute Public Schools without any grand preparation on the part of the teachers and pupils. As good work can be done at any time again on two weeks' notice. And although no full and complete competition could be had at the Exposition on account of the failure of nearly all of the other cities to comply with the arrangements made by the authorities, we rest content, in that our books were examined and admired by thousands of visitors to the Exposition.

Very truly yours,

WM. H. WILEY,

Supt. Public Schools of Terre Haute.

WEATHER OBSERVATION OFFICE,  
SIGNAL SERVICE U S ARMY,  
Indianapolis, Ind., January 1, 1875.

TABLE I.

*Showing the Daily and Monthly Mean Temperature at Indianapolis, Ind., for 1874.*

(Continued from the Twenty-Third Annual Report, 1873.)

DAILY MEAN TEMPERATURE.

1874.												
DATE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1.....	41.0	31.0	45.5	38.0	64.0	68.0	78.5	74.5	73.8	62.0	41.0	38.7
2.....	49.0	33.0	49.0	41.0	59.0	67.0	76.0	71.0	73.0	58.5	49.2	52.5
3.....	59.0	29.0	51.7	40.0	52.0	76.0	79.0	69.7	70.2	54.0	51.2	39.2
4.....	34.5	31.0	41.5	32.5	48.0	77.0	86.0	71.5	27.7	54.7	56.5	39.6
5.....	32.0	34.0	45.0	36.0	54.5	77.5	83.0	74.2	69.2	58.0	57.7	42
6.....	33.0	34.0	51.0	44.0	55	80.5	85.5	77.7	71.8	58.2	58.2	40.7
7.....	34.0	31.5	39.5	47.0	60.5	84.0	89.0	79.2	77.2	55.2	63.5	33.2
8.....	39.0	29.5	31.5	48.0	71.0	85.0	83.5	76.2	76.7	54.7	59.5	32.2
9.....	39.0	24.0	38.0	37.0	72.0	80.5	77.7	79.8	78.2	67.7	54.5	31.5
10.....	36.0	35.0	36.0	45.0	75.0	76.0	76.1	79.0	73.5	60.7	54.5	30.2
11.....	25.0	42.0	34.0	45.0	74.0	72.0	70.7	85.7	74.0	50.0	42.0	32.5
12.....	27.0	54.0	28.0	42.0	75.0	63.0	74.5	85.2	75.2	43.5	38.5	37.5
13.....	34.0	40.0	28.0	57.5	73.0	67.0	80.0	78.7	77.0	42.0	35.5	44.0
14.....	15.5	40.0	35.0	61.0	73.0	72.0	83.5	74.8	77.7	45.7	46.2	30.0
15.....	8.5	47.0	43.0	47.0	71.0	73.5	79.0	72.7	65.0	53.8	50.7	32.0
16.....	18.5	36.5	47.0	39.0	57.0	71.0	72.0	75.2	63.2	56.0	53.7	40.5
17.....	30.0	30.0	63.0	43.0	57.0	74.0	74.0	79.8	70.0	57.7	50.2	32.2
18.....	39.0	34.0	65.0	52.0	54.0	79.0	80.0	82.2	73.7	52.5	39.5	31.2
19.....	42.0	47.0	43.0	53.0	60.0	81.0	83.0	83.0	63.2	51.5	36.5	36.0
20.....	40.0	44.5	46.0	50.5	60.0	79.0	78.5	82.2	77.5	55.7	27.2	34.2
21.....	58.5	42.5	51.0	50.5	53.0	80.5	72.5	76.7	58.0	60.5	36.5	35.0
22.....	51.0	41.0	45.5	50.0	62.0	83.5	75.7	75.5	63.0	64.7	51.0	35.2
23.....	36.0	26.0	31.0	42.0	63.0	85.0	79.5	72.0	65.5	61.2	34.5	36.5
24.....	21.5	29.0	34.0	46.0	74.5	87.5	80.7	71.0	69.7	61.7	21.0	31.2
25.....	28.0	26.5	47.5	49.5	72.0	75.5	82.5	71.8	74.0	65.2	28.7	37.0
26.....	43.0	34.0	43.5	47.0	72.5	80.0	84.5	73.2	70.5	67.2	37.0	42.2
27.....	45.0	35.5	34.6	48.5	77.0	86.0	71.2	76.2	62.2	64.2	36.8	51.5
28.....	32.0	41.0	37.0	40.0	78.0	88.0	69.5	70.0	56.7	70.0	27.5	41.7
29.....	42.0	.....	41.0	45.0	78.0	76.0	72.5	71.0	61.0	59.0	77.2	20.0
30.....	42.0	.....	48.0	60.0	79.5	76.0	75.8	72.2	55.2	60.0	15.2	20.0
31.....	27.0	.....	34.5	.....	73.5	.....	78.7	72.7	.....	34.7	.....	23.2

MONTHLY MEAN TEMPERATURE.

35.6	36.0	42.2	45.6	66.2	77.4	78.5	75.9	69.8	55.5	42.4	35.6
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Highest temperature, 97°; Lowest temperature, 2° below zero.

TABLE II.  
*Showing the Daily and Monthly Mean Barometer at Indianapolis During 1874.*  
 (Continued from the Twenty-Third Annual Report, 1873.)

## DAILY MEAN BAROMETER.

1874.

DATE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1.....	30.035	30.286	30.021	30.103	29.638	29.901	29.972	29.751	30.119	29.785	30.118	30.186
2.....	29.975	30.125	29.934	29.863	29.678	29.876	30.013	29.935	30.060	29.923	30.113	29.969
3.....	29.747	30.191	29.472	29.930	29.860	29.800	30.010	30.047	30.068	30.183	30.125	30.192
4.....	30.143	30.449	29.998	30.229	29.803	29.876	29.906	30.116	29.996	30.341	30.012	30.334
5.....	30.397	30.419	29.963	29.833	29.892	29.849	29.990	30.014	30.030	30.102	30.065	30.212
6.....	30.048	29.871	29.691	29.960	30.011	29.793	29.991	29.866	30.077	30.007	30.240	29.960
7.....	29.859	30.199	29.832	30.003	30.062	29.764	29.873	29.803	29.082	20.117	30.067	30.068
8.....	29.753	30.290	30.135	29.937	30.029	29.775	29.797	29.917	30.067	30.008	29.965	30.062
9.....	29.017	30.329	30.168	29.913	29.997	29.886	29.804	29.951	30.014	29.809	29.977	30.192
10.....	29.756	30.057	30.072	30.102	29.989	29.831	29.829	29.815	29.972	29.790	29.928	30.300



11.....	30.229	29.765	30.097	30.191	30.045	29.854	29.940	29.831	29.961	30.096	30.232	30.300
12.....	30.384	29.483	30.020	30.333	30.047	30.069	29.960	29.957	30.025	30.384	30.412	60.186
13.....	30.097	29.738	20.251	29.981	30.043	30.204	30.051	30.006	30.021	30.420	30.482	29.355
14.....	30.370	30.116	30.323	29.821	29.937	30.085	30.105	30.053	29.948	30.245	30.272	30.438
15.....	30.419	29.708	30.119	29.992	29.769	29.917	30.009	30.072	30.047	30.181	30.374	30.399
16.....	30.388	30.071	29.962	30.012	29.940	29.873	30.039	30.032	30.066	30.002	30.169	29.906
17.....	30.338	30.136	29.839	30.189	29.962	30.044	30.004	30.103	29.938	29.945	30.199	30.298
18.....	29.942	30.015	29.768	30.214	30.115	30.089	30.025	30.068	29.913	30.057	30.430	30.199
19.....	30.075	29.837	29.951	29.885	29.959	30.100	30.059	30.059	29.919	30.108	30.063	30.047
20.....	30.070	29.928	30.072	29.705	29.912	30.091	30.067	30.026	30.198	30.180	29.881	30.023
21.....	29.877	29.937	29.943	30.105	30.087	30.062	30.058	29.915	30.217	30.265	29.897	29.969
22.....	29.702	29.916	30.125	29.952	30.064	30.035	29.995	29.882	30.116	30.163	29.360	29.879
23.....	30.295	30.361	30.410	30.019	29.907	30.030	29.868	29.849	30.094	30.110	29.662	29.991
24.....	30.742	30.506	30.483	30.017	29.695	30.024	29.827	29.979	30.121	30.185	29.981	30.261
25.....	30.706	30.388	30.044	29.767	29.798	29.952	29.786	30.062	30.044	30.225	30.057	30.07 6
26.....	30.237	30.198	30.064	30.129	29.940	29.816	29.810	30.037	29.871	30.140	30.029	29.871
27.....	29.680	30.342	30.155	30.049	29.973	29.742	29.920	29.914	29.835	30.035	30.335	29.797
28.....	30.227	30.172	30.289	30.075	30.014	29.623	29.950	29.860	29.874	29.732	30.277	29.968
29.....	30.211	.....	30.218	30.225	30.103	29.848	30.038	29.779	29.903	29.942	30.314	30.484
30.....	30.098	.....	30.046	29.821	30.023	29.979	30.009	29.847	20.069	30.182	30.459	30.638
31.....	30.402	.....	30.029	.....	29.825	.....	29.869	30.044	.....	30.265	.....	30.670

TABLE II.—Continued.

MONTHLY MEAN BAROMETER.

January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
30.120	30.099	30.044	30.016	29.940	29.925	29.954	29.952	30.020	30.083	30.116	30.165

## ANNUAL MEAN.

Barometer, 30.037; Thermometer, 55.04; Mean Relative Humidity, 62.96%; Number of days on which Rain or Snow fell, 134; Total amount of Rain, 43.60 inches; Prevailing Wind, Northwest.

TABLE III.

*Showing Total Amount of Rainfall, prevailing direction of Wind, and direction of Wind, for each month during 1874.*

(Continued from the Twenty-Third Annual Report, 1873.)

1874.			
MONTH.	Total amount of rainfall in inches.	Prevailing direction of wind.	Total No of miles.
January.....	3.75.....	W.....	5675
February.....	4.17.....	N. W.....	3608
March.....	5.79.....	N. W.....	4901
April.....	4.12.....	N. W. & N. E.	5203
May.....	4.03.....	N. W.....	3945
June.....	5.25.....	S. W.....	3060
July.....	3.53.....	S. W.....	3233
August.....	2.90.....	S.....	3662
September.....	2.09.....	S. W.....	3013
October.....	0.36.....	S & N W.....	4004
November.....	4.82.....	S.....	4931
December.....	2.79.....	N. W. & S. W.	5363

## COMPARATIVE STATISTICS.

Products of the State of Indiana for the years 1873 and 1874, as Collected by Township Assessors, and Compiled from the Auditor's Report for the years ending June 1, being the crops for the years previous.

	1873.	1874.		1873.	1874.
Horses, number.....	514,438	518,102	Pork, barrels.....	85,065	142,651
Mules, number.....	54,307	62,005	Cider, gallons.....	1,097,019	2,379,080
Cattle, number.....	1,211,246	1,277,265	Vinegar, gallons.....	385,835	301,942
Sheep, number.....	1,235,874	1,261,464	Wine, gallons.....	827,490	114,293
Hogs, number.....	2,999,139	2,883,664	Sorghum, gallons.....	501,363	523,692
Wheat, acres.....	1,902,599	2,042,881	Maple Molasses, gallons.....	57,675	86,570
Wheat, number.....	2,627,980	2,613,723	Home-made molasses, value.....	\$20,247,276	\$13,833,093
Oats, acres.....	624,795	548,278	Slaughtered animals, value.....	\$39,98,764	\$4,827,311
Oats, number.....	985,529	1,375,223	Planes, number.....	5,114	7,522
Meadow, acres.....	4,511,775	4,324,191	Melodeons and organs, number.....	4,834	6,985
Pasture and meadow, acres.....	22,149,527	20,825,052	Sewing machines, number.....	65,115	84,913
Wheat, bushels.....	81,185,485	73,970,658			
Corn, bushels.....	333,153	197,625			
Rye, bushels.....	11,434,628	7,541,039			
Oats, bushels.....	3,412,150	2,617,119			
Potatoes, bushels.....	622,943	195,140			
Barley, bushels.....	137,774	135,901			
Grass and clover seed, bushels.....	389,179	152,086			
Flax seed, bushels.....	3,473,161	3,143,520			
Fruit, bushels.....	825,477	930,564			
Hay, tons.....	18,794	10,080			
Hemp, tons.....	3,320,067	4,899,825			
Beef, pounds.....	40,716,530	30,608,120			
Bacon, pounds.....	30,913,746	38,623,908			
Pork, pounds.....	11,391,432	13,069,503			
Lard, pounds.....	2,228,437	2,583,368			
Wood, pounds.....	12,377,182	9,472,365			
Tobacco, pounds.....	29,729	10,585			
Hops, pounds.....	302,041	286,953			
Maple sugar, pounds.....	6,133	8,084			
Beef, barrels.....					

Upon some products the majority of the counties did not report. Therefore all the products of the State are not included in the above table.

**REPORTS**  
**OF**  
**COUNTY AND DISTRICT**  
**AGRICULTURAL SOCIETIES.**  
**FOR THE YEAR 1874.**

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NOTE.—The names of the Presidents and Secretaries of County Agricultural Societies, and the Receipts, Expenses, and number of Entries will be found following, in a tabular form.

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**ALLEN COUNTY.**

The Agricultural and Horticultural Society of Allen county, in April, 1874, changed its mode of operations, by organizing a joint stock company, with a capital of ten thousand dollars, divided into shares of twenty-five dollars each. All of the shares except forty-eight were soon taken, and mostly paid for. The society leased, for twenty years, a tract of land containing sixty acres, very easy of access, within the limits of the city of Fort Wayne, upon which were erected buildings, sheds and a splendid race track, and other improvements, costing in cash over sixteen thousand dollars. The fair was held during the second week in Sep-

tember, and was a most decided success, far surpassing the most sanguine expectations of the friends of the society. The entries for exhibition were two thousand three hundred and thirty-eight, exceeding in number and variety many State fairs.

The exhibition was divided into six departments :

1st. Agricultural and Horticultural, in which were four hundred and seventy-six entries. The horticultural portion of this department was very fine. The pomological portion was a grand collection of fruits seldom excelled.

The second department, Horses for farm and trotting, had two hundred and eleven entries, containing superior specimens of thoroughbreds, roadsters and draft horses.

Third department, Cattle, Sheep, Swine and Poultry, had two hundred and fifty-one entries, embracing some of the best herds of cattle in this State and Illinois ; in sheep, swine and poultry, very fine specimens.

Fourth department, Farm Implements, Machinery and Manufactures, five hundred and sixty-eight entries, giving a magnificent show of nearly all descriptions of farming implements, machinery, etc.

The fifth department had three hundred and eighty entries, embracing Textile Fabrics and Domestic Manufactures, and the display was all that could be expected, and better than is generally witnessed at exhibitions.

The sixth department, Fine Arts, Floral, Geological, and Mineral, had four hundred and fifty-eight entries.

The fine art portion embraced many rare and valuable paintings, ancient and modern. The floral portion was well filled with plants and flowers of rare exotics and more common plants, many of them of uncommon size and beauty.

The society received in money during the fair, over thirteen thousand dollars, and paid out in premiums, \$8,693.50.

The society is now fixed upon a substantial basis, and propose in future to rival, if not excel any fair in the State, except the State fair.

## CASS COUNTY.

The Cass County Agricultural, Horticultural and Mechanical Association was organized April 12th, 1873, and has a capital stock of \$15,000 divided into shares of \$25 each.

The Association are the owners of thirty-six acres of land used for a fair ground, situated on the south bank of Eel River. The location is beautiful, easy of access and admirably adapted for the purpose. We have a fine half mile track, a Mechanic, Produce and Fine Art Hall, in fact about every improvement necessary to meet the wants of exhibitors and others attending the Fair.

The cost of the land and improvements up to this time is \$17,523.95.

The Fair of 1874 was the Second Annual Fair. The display in all the departments was very fine, exceeding the expectations of the most sanguine; the number of entries was 1,823, being more than double that of last year.

The amount paid out for premiums was \$2,903.30.

The attendance of exhibitors from abroad was quite large and added much to the attractions of the exhibition, and has a tendency to stimulate the citizens of our county to greater exertions in the improvements of both stock and products of the soil. Our farmers are convinced that county fairs are a good thing, and I am satisfied that the work of improvement will still go on, and that our county, which is far behind other counties in the State in the matter of fine stock, will in the course of a few years, take a position in the front rank, and that a large proportion of that improvement will be due to her Agricultural Association.

There is no good reason why Cass county situated as she is in the beautiful valley of the Wabash and Eel rivers, with her fine farming lands, good water power, and railroads running in all directions, with a beautiful and growing city like Logansport and her flourishing towns of Galveston, Walton, New Waverly and Royal Center, should not have as good a county fair as any in the State.

From present appearances, the Fair of 1875 will be an improvement on 1874 in many respects.

In relation to the crops in the county for the year 1874, I would say:

Wheat—A full average.

Corn—More than an average.

Oats—An average.

Flax Seed—Hardly an average.

Clover Seed—An average.

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### CLINTON COUNTY.

The Third Annual Fair of the Clinton County Agricultural Society was held on their fair grounds, one-half mile south of Frankfort.

The competition for premiums on horses, cattle and hogs was the most spirited we have ever had. The fair was not so much a success, financially, this year as it was last year, but the exhibition of articles and live stock was far better than ever witnessed on our grounds.

• The crops generally in this county were far better and larger than last year. Our farmers are beginning to see the benefits to be derived from an agricultural society in the county. Many of our best farmers have imported to our county blooded horses and thoroughbred cattle. There are many Berkshire and Chester White hogs to be seen here.

There can be no doubt any longer as to whether Clinton county can sustain an agricultural fair. The number of entries was 1,517.

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### CLAY COUNTY.

Our fair this year, commencing on the 7th and ending on the 12th of September, was well patronized by the people of Clay, Parke, Vigo and Putnam counties.



The receipts were \$3,119.51.

The disbursements were about \$2,600.

I must especially speak of the show in the Floral Hall, consisting of such articles as are usually presented by the ladies and manufacturers.

Evidently the people of this and surrounding counties are awakening to greater zeal and attention, not only in the matter of agriculture, but of stock raising.

There is an abundance of everything in the shape of farm products.

The coal interest here has suffered severely during the past year for want of a market and cheap transportation, but is at present rapidly recovering.

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### DAVIESS COUNTY.

In this county wheat, corn, oats and hay are the principal products. The wheat crop harvested last season was the best for many years, and far above the general average. Farmers are giving more attention to the cultivation of wheat than formerly, and are beginning to appreciate the value of clover sod and fallow ploughing for wheat. We think a farmer can not bestow too much labor on his ground preparatory to seeding. That which is regarded as the best method is to plow well, then harrow until well pulverized; roll with a heavy roller, and seed with a grain drill. When a fertilizer is needed, top-dress with well rotted manure. By pursuing the above method an average crop is reasonably sure. Prices ranged from eighty-five cents to one dollar, bought mostly by local millers, but little being shipped to other markets.

The corn crop was not up to the average, owing to the severe drouth and the presence of the chinch bugs. In some localities they ruined the crop early in the season. We know but little of these insects, consequently can not pre-

vent their depredations. Some farmers are trying late fall and winter plowing, thereby subjecting the land to hard freezing in order to kill the grubs and insects, and hope for beneficial results.

The oat crop was almost a failure. The late spring prevented early sowing, which is absolutely necessary in order to secure a good crop.

Barley and flaxseed are raised only in a small way. When properly cultivated, both do well.

Owing to the continued dry weather the meadows were light, yielding, probably, not more than a half crop. The scarcity of feed has induced farmers to hold their hay for winter use, and but little has been on the market. Our meadows are principally red top, which seems indigenous to this soil, although some timothy and clover is raised. All grow well, and raising hay is considered profitable. Prices ranged from \$10 to \$15 per ton.

The dry season and the potato bugs cut short the crop of late potatoes—will not have enough for home consumption. Very early varieties, with early planting, do well, as they mature before the bugs injure them very much. Potatoes are generally planted in check rows, manured in the hill, and cultivated both ways.

#### STOCK.

Our stock of horses is not first class. The raising of fine horses does not receive the attention it should. Our farmers give more attention to raising mules, as they are more profitable, require less care, and when old enough to work find a ready market.

The quality of cattle is rapidly improving. There are several first class herds in the county. The blood is being disseminated, and a marked improvement is to be seen.

Sheep do well, and are comparatively free from disease. Large breeds of sheep are most profitable for mutton and fleece. In small flocks sheep growing has been remunerative.

Our stock of hogs has been greatly improved in the last few years. Berkshire, Poland, Chester White, and their crosses, are regarded as the best. No improvement in the way of feeding. Farmers, with a few exceptions, adhere to the old method. Our packing establishments furnish a convenient home market, and the surplus hogs are shipped to Cincinnati and Louisville. Prices ranged from \$5.75 to \$7.00.

The Fourth Annual Fair of the Daviess County Agricultural, Mineral and Mechanical Association was held near Wasington, and notwithstanding the continued dry weather we had a good exhibition and a very fair attendance. Owing to an unfortunate ticket system, the receipts were not as large as they would have been under other circumstances.

Total Receipts,.....	\$2,122 32
Disbursements.....	\$2,122 32

Our manufacturing interests are progressing favorably. With a good location, cheap timber, cheap fuel and cheap rents, this could not be otherwise.

Coal mining has been active during the year, and is one of the leading industries of this county.

In regard to the condition of agriculture, I have but to say, that it is improving from year to year. Probably we are not making such rapid strides as some other portions of the State, but our growth is permanent. Our farmers are somewhat discouraged, owing to the low price of stock and grain, the stagnation of business and the consequent scarcity of money, and feel called upon to economize; but we believe this process of economy going on all through the land to be productive of good rather than evil, and, no doubt, we shall see good results from it in time to come. While our farmers and business men are diligent and economical, we will have a permanent and healthy growth.

## DUBOIS COUNTY.

The society for this county was organized in the spring of 1871, and has held exhibitions annually, ever since its organization. The grounds of the society are adjoining the town of Jasper, and comprises forty-one acres, about two-thirds of which is substantially enclosed, upon which there are three wells, halls for the display of manufactures, grain, fruits, flowers, etc., and an exhibition ring, with a good amphitheater, and an excellent half mile track, stalls and pens for stock, and other improvements, costing in the aggregate about six thousand dollars.

The third fair was in many respects superior to the two preceding fairs. We tried the experiment of doing away with entry fees in all classes, except in the speed ring, which proved to be very popular among all interested.

No of entries.....	707
Amount received from all sources.....	\$1,701 37
Amount expended.....	1,548 57
Amount of receipts over expenses.....	\$152 80

The society being in debt, this balance will be expended upon payments now due; and with the proper encouragement which we hope to merit, will be able to pay all our debts within three years.

Our county is rich in coal and iron, with an abundance of good timber, such as poplar, oak, walnut, sugar tree, beech, hickory, etc.

The west half of our county is well adapted to the growth of grain and the grasses, and the eastern portion is better suited for sheep husbandry, being more or less broken.

Our system of farming has not been good for want of rotation, and the lack of labor-saving implements, but there has been a great improvement in the manner of cultivation, as also in the stock line, within the past five years. Our stock is not up to the standard, yet it is growing much better yearly.

The value of lands for taxation, is put down at \$1,569,100; value of improvements, \$308,615; total value of taxables, including personal, \$3,129,865. The actual value of which is probably \$6,000,000, or more in the county.

## DECATUR COUNTY.

This Society was organized in the year 1852, and has held fairs and endeavored to sustain and encourage the agricultural and manufacturing interests of the county to the present time.

The Society is the owner of twenty acres of land, about one-half of which is beautifully shaded, all under good fence and well improved.

The grounds are provided with a splendid time track, (equal to any in the State,) one-half mile in length.

The fair was held at Greensburg, and was a first class exhibition in every particular. The competition and show in the stock department was extensive and spirited, and the exhibitors and visitors were all interested and generally satisfied.

The entries were 1,845.

The amount of premiums awarded were twenty-five hundred dollars, (all in cash.)

The receipts from all sources, were about twenty-seven hundred dollars.

The soil and timber of the county is generally good. Our crops consist of corn, wheat, oats, barley, vegetables, and all the grasses, which with proper culture, are remunerative and satisfactory to the producer.

The grasses, such as bluegrass, timothy and clover, grow in great luxuriance wherever they have proper attention. And the bluegrass is decided by our farmers to be one of the best grasses for pasture in early summer, fall and winter.

Our system of farming is as thorough as that of any

county in the State, and is becoming more practical each year, and it is the pride of our farmers since the introduction of draining tile, that no county in the State is better drained than ours and the agriculturist realizes that no investment nor enterprize promises or yields greater advantages or more important results to the agricultural wealth of the county.

Our farmers are certainly taking the front rank, not only as agriculturists, but as stock raisers, as the large number of fine cattle, horses, mules and hogs shipped from this county will demonstrate. One firm alone shipped south and east two thousand mules; an eastern shipper of cattle from an adjoining county, has shipped over two thousand cattle, and says that so far as fine fatted cattle are concerned, that he knows of no county in the State that has as many fine fatted bullocks. Our county is preeminently "A" number one in the production of first-class hogs, as the entries at the last fair numbered over one hundred in the several classes, and there has been slaughtered by the firm of D. Armel & Co., over twenty thousand hogs, and the shipments show more than thirty thousand from the county.

The mineral resources of the county are inexhaustible, and the shipments from the stone quarries of Harris & Co., the Greensburg Limestone Company, and from the St. Paul quarries of W. W. Lowe & Co., and John Eck & Co. amount to more than two hundred thousand dollars. The firm of Harris & Co. are now building a branch railroad from their quarries to Greensburg.

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### ELKHART COUNTY.

The Elkhart County Agricultural Society was organized in June, 1851; held annual fairs regularly until the year 1867. The results of that year and the two preceding years was so unsatisfactory, that those having it in charge reluctantly determined to suspend the exhibitions. A small but

nice fair ground within the corporate limits, was sold to the Wabash and Michigan Railway located across the grounds, and grounds purchased about two miles south, on the Logansport road. This was found to be too remote from town, and it was determined to procure a new ground nearer town; but the Society was unable to sell its fair ground, and without sale of same was unable to purchase a new fair ground. To effect this, a new organization was made on the joint stock plan, \$4,000 subscribed, a fair ground of twenty-nine acres lying just outside of the town limits was purchased for that sum, a beautiful oak grove fenced, a half mile track laid out, grubbed and graded. An arrangement was effected with the new organization, whereby the Elkhart County Agricultural Society is to have a lease for a term of years for purposes of holding annual fairs, with conditional provisions for purchase and absolute ownership. What was a grove untouched forty days before the fair, was thus fitted up with fence, track and buildings into a beautiful and well adapted ground for the purpose. This was the Sixteenth Annual Fair, and was held in October, 1874. The attendance was very large. The show was very good, considering the incomplete arrangements. The number of entries was 496.

Total receipts.....	\$1,590 00
Paid out for premiums.....	\$600 00
Paid for erection of buildings, gate keepers, police and like expenses.....	448 00
	<hr/> 1,048 00
Balance on hand .....	\$542 00

The officers return their thanks to the many farmers who came to the fair with their many articles for exhibition, and for the words of satisfaction and encouragement of many others. We will for the next year, that of 1875, enter upon the work of preparation with a degree of confidence, that we think will promise certain success.

So far the Agricultural Society has pursued the plan of selling member tickets at one dollar that admits the holder and all his family under twenty-one years old during all the days of the Fair. This privilege is often greatly abused by the holder of the membership ticket, and no doubt very many are admitted therein that should be excluded or required to pay, but no plan will be found free from objection. The farmers here are accustomed to this rule, and it is feared that any new regulation might produce dissatisfaction and work an injury to the cause that the Society is intended to promote.

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### FAYETTE COUNTY.

This Society was one of the first of the kind in the State, was organized under the original "act for the encouragement of agriculture," and has been one of the most prosperous among this class of organizations—if not the leading agricultural society—as a comparison of the published annual reports will show. Fayette county was the first agricultural society to offer premiums, without regard to limits for competition. The example was followed the succeeding year, 1856, by the Indiana State Fair and soon imitated by other States. The liberal policy inaugurated by this county has become an established feature with all agricultural fairs.

This county was among the first to organize a joint stock Agricultural Association, under the law made and provided, and has been remarkably successful in accomplishing the object sought for. With a capital stock of \$6,500, they have property in grounds and buildings valued at over \$20,000. The fairs were famous for their excellence and the liberal attendance of visitors from adjoining counties.

Such was the progress made in this direction until the season of 1872. An evident change took place, a blighting curse seemed to spread over the heretofore prosperous and



favorite institution, for the beautiful fair grounds might well be called the *pride of the county*. The cause of the change was apparent, and loudly protested against by the community, for encouragement was given to the gambling fraternity by selling them privileges on the ground to a disgraceful extent, and the natural consequence followed. The same course was pursued the following season and resulted in a deterioration of everything in connection with the fair, and for each \$1 gained by selling privileges to immoral characters, the society lost \$10 by short attendance.

Such was the state of affairs at the beginning of the year 1874. The managers acknowledged their error, and appealed to the community to give them a chance to redeem their blemished reputation, pledging to profit by the experience of the past year and conduct the fair on *first principles*. A generous public responded, the grounds were again well filled, and the many happy faces told the pleasure of meeting at the annual jubilee where the taint of corruption was banished, and frequent were the expressions of gladness that their cherished institution was probably redeemed from oblivion. The exhibition was better than the year preceding, although not quite equal to those a few years previous, and it is with much satisfaction we pronounce it a success. The prospect for the fair of 1875 is that it will equal any former fair.

The live stock interest is increasing, as are all improvements pertaining to agriculture. The spirit of rivalry and emulation among our leading farmers is unabated, which is sure to follow with good results.

The manufacturing interests of the county has taken a remarkable impetus during the past season. Several new and large establishments have been erected at Connersville, the county seat, which it is estimated will give employment to several hundred persons. The White Water River, running through near the center of the county, furnishes an immense water power, by means of a hydraulic canal which is but partially utilized at present.

For the requisites that go to make a desirable location, as soil, timber, stone, gravel and water, (running streams), this county can hardly be excelled.

The county seat is a thriving town of over 3,000 inhabitants, lying about half way between Indianapolis and Cincinnati, with direct railroad communication, north, east, south and west ; it has flattering prospects for becoming one of the important cities of the State.

The season has been a prosperous one to the farming community. The corn crop was an average one, the prospect during the growing season was unusually promising ; a drought set in at the time of earing and maturity, which injured the crop. The wheat crop though not so large as in some seasons past, was of a remarkable good quality, producing extra flour. Barley crop, light, grain good ; oat crop medium ; potatoes excellent ; apples and peaches were a light crop ; small fruits in abundance. The hay crop was good, the drought set in the latter part of summer, which cut pastures short, requiring early feeding for stock. No disease among farm stock reported during the past season, except some hog cholera in the northern part of the county.

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### FULTON COUNTY.

The Fulton County Agricultural and Mechanical Society held its third annual fair on the grounds of the society near Rochester. The competition for premiums, in all departments, was the liveliest we have ever had, and the exhibition of farm products, home manufactures, and miscellaneous department was very fine.

Financially the fair was not so successful, which was occasioned by unfavorable weather ; and as the society was at a heavy expense in the way of improvements on the grounds, the receipts were not sufficient to pay the premiums and meet all the other expenses.

Fulton county had an average crop of wheat, corn, oats, rye, buckwheat, potatoes, and of all the vegetables grown in northern Indiana. We feel confident that with the hearty support of the citizens of Fulton county, that the society here will rise to or above the average of the societies of the State.

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### GREENE COUNTY.

The fifth annual fair of this society was held on their grounds near Linton. The Board made a mistake in selecting the time for their exhibition, as our farmers were then preparing the soil for the wheat crops. Unfortunately the Sullivan County Fair came off on the same day, and this, with public speaking in the county during that week, necessarily made the attendance small, and the result was unsatisfactory. The total receipts were \$851.00; disbursements, \$848.47; number of entries, much less than last year, 365.

Wheat in the county has yielded a fair average, and brought in the market from ninety cents to one dollar per bushel. Tappahannock is gaining annully more friends, and the growing crop is largely of that variety. Foultz wheat has been introduced through the Agricultural Department in Washington, and promises well. The growing crop looks well.

Our corn crop has been very large, and most of it is of excellent quality, some late planted was injured by the chinch bug.

Hogs, in large numbers, have been shipped from Missouri; and other places to consume the large surplus of grass in the White River bottom. Many hogs brought here have died with the cholera. They looked healthy, and came from districts where the disease was unknown. The theory advanced by many of our feeders, to account for the breaking

out of the epidemic, is bringing the hogs to a country where this malady has been prevalent for years, although not affecting our own hogs at present, and from scarcity of food, and water too plenty. The number of fat hogs shipped from this county the present season is the largest that ever left this section of the State. Prices have ranged from \$6.00 to \$6.75 gross. Corn 50 to 55 cents per bushel.

Oat crop very light. A great many of our farmers have abandoned this crop. The early spring is generally too wet to plow and sow in time, and when the soil gets dry enough, hot weather sets in at once, not giving the oats time to stool, and are either choked by weeds or too short in straw. By breaking the ground late in the fall, and sowing in the spring as soon as the condition of the soil permits it, and harrowing in without plowing, might make the crops more certain.

Hay only two thirds of a crop. Scarcity of feed last spring made late pasturing a necessity, and this, with dry weather, cut the grass short. More clover is sown every succeeding year. The great bulk is used for pasture, very little made into hay.

The potato crop was a light one. The long striped bug made its appearance very early; great swarms followed, and destroyed many fields.

The product of the orchard was light. In low localities, peaches were killed by the frost; what remained was of inferior quality. Many apples rotted on the trees, showing dry black spots.

Taken as a whole, with present prices, the farmers of this county have had a fair return for their labor.

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### GIBSON COUNTY.

The Gibson County Agricultural and Horticultural Society held its annual Fair near Princeton on the third

week of September. The entries were considerably increased over last year. The receipts were not so much as might have been if it were possible to prevent fraud in the use of family tickets.

The society is now contemplating buying more land so as to enlarge the ring and be able to take into the inclosure all wagons and other vehicles.

Our Society has rigidly enforced the prohibition of all gambling institutions, both inside and out of the grounds.

The exhibition of cattle showed that the farmers are beginning to realize the importance of the short horns, a number of very good short horns being on exhibition. The show of hogs was good. Of the breeds shown were the Berkshire and Poland China. Sheep—Some very good Cotswolds. Some very large powerful draft horses were exhibited, but of the general purpose there were the largest number. The show of grain was good, both wheat and corn. The vegetables were fully up to an average. The ladies department was full, and showed they were workers for the fair. Another grand feature was added to the fair by the ladies this fall—a pyramid of pot flowers—giving out their fragrance and beauty, helping much to adorn the floral hall.

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## HOWARD COUNTY.

The Howard County Agricultural Society held its fifth annual fair near Kokomo, and while it was not a financial success, the exhibition in all the departments was the best we ever had, particularly so in cattle and hogs.

For two years our society has been offering the following premiums on farms :

Best farm of 120 acres or over.....	\$100 00	\$50 00
Best farm of 80 acres and under 120.....	50 00	25 00
Best farm of 40 acres and under 80.....	25 00	12 50

In awarding premiums on farms, convenience of houses and barns, production of lands, orchards, fencing, lanes, gates, drainage and all that goes to make a farm valuable, beautiful and convenient, to be considered. Plat of drainage to be given. To secure these premiums there must be at least five entries for each. But until this year there has not been the requisite number of entries made, and this only in one class, that of 80 acres and under 120, the first premium being awarded to John Morrison, and the second to William J. Floyd. Next year, I have no doubt but that these premiums will all be competed for, and I think it is one of the best premiums an agricultural society can offer, encouraging farmers not only to have their farms in a condition to produce the best crops, but to have good orchards, and good convenient houses and barns.

Howard county has been blessed with good crops this year; the wheat crop being more than an average, and corn the best we have ever had; hay crop very good; oats about an average crop; clover seed good, both quantity and quality; the fruit crop very good, and for the first time for seven or eight years we had a good crop of peaches; potatoes the largest yield we have had for years, thousands of bushels having been shipped to other markets, the farmers realizing from fifty to seventy-five cents per bushel. There has been about twenty-five thousand hogs, up to Jan. 1, 1875, shipped from this county to Indianapolis and other places, the price ranging from  $4\frac{1}{2}$  to 7 cents, the great bulk having been sold at about five cents. The result of all these good crops and prices has been to make money more plenty, and all kinds of business more prosperous than it has been for years. Our county is improving very rapidly, good brick and frame houses are fast taking the places of the old log cabins and houses, and every year adds one or two turn-pikes to our county. Kokomo, the county seat of Howard county has also been improving very rapidly; the city is now lighted with gas, the works having been built during the past year.

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HARRISON COUNTY.

The Harrison County Agricultural Society held its fifteenth annual fair near Corydon. The weather was all that could be desired, and the fair proved to be a complete success, the number of entries amounting to eleven hundred and sixty-seven, being the largest number of entries ever made at any of our annual exhibitions. Although we had a very dry season, the show in agricultural products was equal, if not superior, to any former show in that department.

The exhibition in the live stock department was also very good, comparing very favorably with all former ones. In fact, Harrison county or the citizens thereof, may well be proud of their annual exhibitions, they having succeeded from year to year in paying good liberal premiums, keeping the property of the society in an excellent state of repair, and also keeping the society clear of debt.

Total receipts \$2,098.20. Total expenditures \$1,956.69.

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JOHNSON COUNTY.

The Johnson County Agricultural Association held their seventh annual fair near the city of Franklin. The fair in many respects was all that was expected by its officers, who worked faithfully and diligently to make this fair a full and complete success, but we think that we have not received the encouragement and support from many of the citizens of Franklin that we reasonably expected.

Johnson county stands first upon the list for stock raising, and we believe we have at this time as fine stock as there is in the United States. Within the last year, Messrs. Hazlett & Mathes have imported a few of the celebrated horses from Clydesdale, Scotland, and they are considered, by the best judges of horses to be the finest in the world.

And as to fine cattle we have no longer to go to Kentucky to purchase, for we have them here in Johnson county as thoroughbred as there is in the United States. And as to sheep and hogs, we believe we have them as fine and of as good stock as there is in the country.

The crop of grain, wheat, corn, etc., was about an average. The drouth in the latter part of the season cut the corn crop a little short. Clover and grass, generally good crops in our county.

I do not feel like closing my report without saying a word of praise in behalf of our floral and art department. In this department it far excelled that of any of our former fairs. The attractive feature was the large display of paintings in oil, executed by amateur artists, with few exceptions.

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### JAY COUNTY.

The third annual fair of the Jay County Agricultural, Horticultural and Industrial Association, was held on forty acres of land, located one-half mile east of the town of Portland; twenty acres of this land is well set to grass, and containing a good half mile race track. The other twenty being well shaded with a natural forest grove, thus affording ample room for visitors and their teams. No running stream, but supplied with five wells.

The entries in the live stock department excelled any previous fair, but in the aggregate the entries were less than in 1873.

The products of the farm, the orchard and the garden, were well represented. The grains, seeds, potatoes and apples exhibited at this fair, was far ahead of any former exhibition in Jay county.

The attendance during the fair was larger than usual, and the interest manifested was creditable. The fair in every respect was a success. We feel confident that if we con-



tinue to merit the confidence, and look to the common interest of our citizens, that we will rise to the average of the societies of the State. We pay our premiums in cash.

Total number of entries, 567. Receipts; \$2,708.65. Expenditures, \$2,409.82.

In regard to crops. Corn, oats and seeds were above an average. Wheat about a half crop.

The soil of Jay county is composed principally of heavy clay on the uplands, needing no better fertilizer than barn yard manure, while the lower lands are composed of a black loam, more or less sandy, equal in fertility, for corn and oats, to the bottom lands (bordering rivers and smaller streams,) needing proper drainage as a fertilizer. Our farmers are using tile drainage to a considerable extent and with great success, in connection with surface drainage.

The farming community are alive to the interest of improvements, both in farming and in farm implements, as well as the improvement in all kinds of stock and grain.

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### JENNINGS COUNTY.

The Jennings County Agricultural Society was organized in 1854, and held its twentieth annual fair near Vernon. The attendance was not large, and the number of entries for many of the farm and other products was small. There has been a feeling among a large and respectable class of our citizens, that the fast ring has an injurious effect on the morals of those in attendance, especially the young, hence there has been a growing feeling that this portion of the exhibition at our fair should not be encouraged, or even tolerated; while another portion of community claimed that if the fast horses were excluded, our county fair

would be a financial failure. With a laudable desire to satisfy all, the County Board, a year ago, decided to hold two fairs, one for the benefit of the agricultural and mechanical interests, and another to gratify the lovers of fast horses. The attempt was made, but did not meet the expectations of the advocates of the change, and, with the one trial, has been abandoned as impracticable.

At our late fair, while fast horses were not excluded from the ring, the premiums were very much reduced, having been cut down on trotters from \$200 to \$25, the farmers complained, and with apparent justice, that there was too great a difference between the premiums on horses for the ring, stock and farm and products. This diversity of opinion and feeling has, perhaps, been the cause of the slim attendance at our late fair.

But while our annual exhibition has been small, it has been quiet and orderly, and the people seemed to enjoy themselves. We have positively prohibited the sale of all intoxicating drinks within the grounds, as well as side shows, games of chance, and, as much as possible, every thing that would have a demoralizing tendency on the minds of the young; and if we do not have as large a fair as many others, we believe it will compare favorably with any as regards good order, and freedom from any thing that may have an injurious effect on the morals of the youth of our county,

The timber of our county consists principally of beech, oak, poplar, hickory, walnut, ash, sugar, and sweet gum. Within the past few years many thousands of dollars worth has been made into staves, lumber, and shingles, and shipped to distant markets, and now the amount of valuable timber is comparatively small.

The wheat crop of our county the past season was a fair average. Oats and hay light. Corn unusually good. Of most varieties of fruit we had a good crop. This was especially the case as regards apples, which were, perhaps, never so abundant as the past season.

## KNOX COUNTY.

The annual fair of the Knox County Agricultural and Mechanical Society was held at Vincennes, and was successful, financially and as an exhibition.

In the live stock departments there were of horses, 100; cattle, 87; hogs, 45; and sheep, 39 entries; entries in sweepstakes not included. The exhibition in the horse and sheep department was good, but did not show the improvement in quality in the cattle and hog departments.

In the implement and mechanical departments there was a very good show, our agricultural product departments with 287 entries, was, as usual, as fine as found anywhere, while on the 3,000 feet of floor space allotted to the ladies' handiwork, the tables and walls were crowded with specimens of the beautiful, useful and good.

The total number of entries was 1,641; total receipts of fair, \$4,910.15; total expenditures, \$4,600, leaving a surplus of \$300 over all expenses, with which the small indebtedness of the society has been paid.

The society has existed four years, owns thirty acres of land within one-fourth of a mile of the city of Vincennes, and has expended about fourteen thousand dollars in improvements and fitting up the grounds, and is clear of indebtedness.

Should our fair continue as prosperous in the future, it will be a necessity that we enlarge the grounds, as the last fair clearly demonstrated.

Our county has been favored with fair crops the past season. Wheat, a reasonably good yield. Corn, a very fair crop, except a small portion of the northwestern part of the county. Hay, potatoes and fruit, a light crop, but on the whole we have no reason to complain.

## LAWRENCE COUNTY.

The last exhibition of the Lawrence County Agricultural Society, held at Bedford, owing to the extreme dry weather, was not a financial success.

Although a portion of the past cropping season was extremely dry, yet the yield of wheat was above an average. The Tappahannock and Egyptian are the favorite varieties. One crop of the former averages 35 bushels per acre.

Oats almost a complete failure.

Rye, but little sown and the return meagre.

Corn.—This crop was fully an average crop and is selling at fifty cents per bushel.

Cattle.—Since our last report a number of thorough-bred (short horns) have been imported from Kentucky, and a number of our farmers are now possessed of very handsome herds of this description of stock. The aggregate number of cattle, of all kinds, is doubtless much smaller than is usually kept through the winter.

Hogs.—Poland China, Chester Whites, and other large breeds, have heretofore been the favorites in this county, but a number of Berkshire and Yorkshire are now being introduced. The number of hogs fattened and sold to the packers the present season is not so large as for some previous years, but the price realized (\$6.00 to \$7.00 per 100 gross) will bring in an amount of money equal, if not greater, than for any season for several years.

Horses and mules very dull sale, there being little or no local or foreign demand for either.

## LAKE COUNTY.

The sixteenth annual fair of the Lake County Agricultural Society was held at Crown Point. The fair, this year, did not meet with its usual success. The weather was disagree-

able, the first day was ushered in with all the indications of rain, consequently the number of entries did not equal those of last year. The second and third days were more pleasant, which, no doubt, was the cause of giving the fair the degree of success it attained.

The exhibition of stock was good, and equaled that of former years. The display of farm and garden products was not as good as last year, owing, perhaps to the excessive dry season. The floral hall did not present the artistic appearance it usually has heretofore, in fact, people did not seem interested in exhibiting their ornamental work this year; but with all discouragements, if we may call them such, we held a fair that was an honor to the county and to the State.

The receipts this year were not sufficient to pay premiums and expenses, but by having money in the treasury, we were able to pay dollar for dollar.

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### LAPORTE COUNTY.

In compliance with both law and custom, I have the honor of submitting my report of the doings of the Agricultural Society, and the condition of agriculture in LaPorte county. The labors of our society for the year past, have been onerous and varied. In addition to the general routine of business, the officers of our Society have been compelled to endure the labors and perplexities of what may be termed two exhibitions; one in June, continuing four days, and another in September, lasting five days. The former was what is generally known as a trial of speed—the offer of large purses for the fastest trotters, and to which the whole world was invited to participate and contribute. This meeting was the fourth of a series held at different yet contiguous places, and upon which we had built high hopes. The result was hardly up to expectations, for while we were honored with no small array of famous

horses, that exhibited some fine speed, yet the people failed to appreciate our efforts, and our receipts were below our expenses.

Not discouraged, however, we hoped to regain all, and more, by the magnificence of our exhibition in the fall. In this we were more successful, yet owing to a long train of opposing circumstances, the financial department of our fair was again a failure to some extent, and the exhibition closed with an empty treasury. The fault, however, can be laid to no one connected with the Association, for, to their honor be it said, no men ever worked with more zeal or industry, and their labors were certainly deserving of a greater reward.

Yet there are some green spots in this desert of financial troubles, for the exhibition itself, with a few exceptions, was never surpassed, while some of the departments of the fair have never been equaled by any county exhibition. The display of agricultural products was fair; that of farm machinery good; that of fine arts excellent; while that of stock was extraordinary. There was one department that was a complete failure—that of “Domestic Manufactures and Table Comforts,” usually patronized by the ladies, which was totally ignored. Why this was so, I am unable to say. Every inducement heretofore offered was continued, with many additional ones. The premiums upon many articles was increased; every encouragement was offered that could reasonably be expected; yet all this failed to be appreciated by our lady friends, and they practically ignored the existence of this department, without intimating any reason therefor. We record this with regret, for the reason that this department has always been both interesting and profitable, yet we hope that in the future we shall have no cause of complaint, and that this department shall again become what it once was, or even better.

The number of speed entries at the June meeting was over sixty, and at the fall exhibition, some four hundred and forty-three (443), was equitably divided among the various

departments, and the attendance of spectators on the latter days was very good. Nothing occurred to mar the harmony of the occasion, and with the exception of the want of money, the fair for 1874 was an agreeable occasion.

The detailed statement of the receipts and expenditures being of no general interest to you, I leave this department to our treasurer, who submitted his report to our board, and which by that board was examined and approved.

#### HISTORY.

Having said this much regarding the condition, present and prospective, of our society, I feel that my labors upon this report would be incomplete, did I fail to say something concerning our county, and progress of agriculture, and mechanical improvements therein, and I do so, even at the expense of making this report prolix, or with being charged with repeating what so many know. Following the customs of former years, this report, I presume, will be published in the proceedings for the year 1874, and will be read by many who have never honored us with a visit, but who, I hope, will be better informed by its perusal. And this is my only apology for saying what follows.

By reference to the map, it will be seen that La Porte county is located in the northern portion of the State, bordering upon the southern shore of Lake Michigan. It is the third county from the western and the fifth from the eastern boundary of the State. It was organized in 1832, contains about four hundred and fifty square miles, or sections, has twelve and one-half congressional townships, is divided into nineteen civil townships, and in 1870, sustained a population of about 32,000, though at this writing that number has been increased not less than ten per cent. It is about five hundred feet above the level of Lake Michigan, and being affected by the breezes coming from that lake, may be safely counted upon as one of the most healthy counties in the State.

The name *La Porte* is a French word, signifying the gate or door, and was applied to this section of the country by

some Frenchmen, who observed that on, or near, one of the prairies, two beautiful groves approached each other so nearly that at a distance the opening between them gave the appearance of a gateway or door. From this fact one of the most extensive of the prairies was named *Door Prairie* or *La Porte Prairie*, and the name in the same manner was applied to the county when the same was organized.

The location of this county places it in the very track of trade and travel between the east and the great west, and is the terminus of what has recently become an extensive trade between the north and the south. The Chicago & Michigan Lake Shore, the Michigan Central, the Lake Shore & Michigan Southern, the Pittsburgh, Ft. Wayne & Chicago, the Chicago & Lake Huron, the Baltimore & Ohio, the Chicago, Columbus and Indiana Central Railroads traverse the county from the east to the west, and the Chicago & Canada Southern now in process of construction; while the Louisville, New Albany & Chicago, the Indianapolis, Peru & Chicago pass through the county from north to south. There are now thirteen prominent freight and passenger stations, besides several minor stations, which afford shipping facilities superior to many, and equaled by few, counties in the State.

#### SOIL AND TIMBER.

The soil along the lake shore, in the northern part of the county, is light and sandy, and was originally covered with pine suitable and valuable for lumber. This land is but a small portion of the county, but by proper improvement can be, and much of it always has been, rendered very productive for vegetables and small fruits.

Dividing these pine lands from the prairies, is a strip of heavy timbered land, or was formerly so, of clay and loamy soil. This portion of our county contains nearly every kind of valuable timber known in the north, and in great quantities, lumbering and timber dealing having been, and still is, a very considerable trade. Quite a large portion of these timbered lands have been cleared and opened up



for agricultural purposes. Their productive qualities are extraordinary, and the quality and quantity of grain, particularly winter wheat, and all manner of native fruits, both great and small, are subjects of commendation. Large quantities of this valuable timber still stands, an almost inexhaustable supply, equaling all ordinary demands of the county's wants, and a standing invitation to those who seek locations for manufacturing.

Next on the south, we find the beautiful, grand and productive prairies. Not so large as to be desolate, or so small as to appear insignificant. They constitute nearly one unbroken chain of prairies from the eastern to the western boundary of the county, separated only by beautiful groves filled with valuable timber as dividing lines. Of these, Rolling, Ball Hill, Door or La Porte, Stillwell and Hog prairies are the most prominent. The county contains about one hundred and eighty sections of this prairie land, unequaled in quality and beauty in any clime beneath the sun.

Next follows a lighter growth of timbered land, consisting of the commoner kinds of hard wood, such as the various kinds of oak and hickory. The soil is a sandy loam, warm, easily tilled, very productive, but lighter than either the clay or prairie soils.

Following these, are the much abused marsh or swamp lands, which are so universally known by the attempt to reclaim, which caused so much excitement throughout the northern part of the State a few years ago. These lands are sometimes simply overflowed prairies, with the sandy and clay soils. These, when free from water, are known, from experiment, to be some of the most fertile in the county. Others are peat beds of almost inexhaustible supply. These lands have formerly been considered of little value, but the experiments of the last few years of dry weather has proven them to be of considerable and increasing value. As grazing lands they are unsurpassed, and being cheap, the stock raisers may here find ample and valuable fields for their operations. This branch of industry has already found

many patrons, as there may now be found many persons located on and near these very lands, engaged in the raising and grazing of stock; and hundreds and even thousands of fine cattle may be seen quietly feeding upon these fine marshes on almost any day in summer. Hundreds of tons of a fine quality of wild hay are yearly cut from the lands, and a great many firms are engaged in pressing and baling this hay for large city markets.

These lands, from the lake to Kankakee river, are by no means all improved or occupied, and can be purchased at remarkably low prices, considering their location and quality, and the emigrant and home seeker would do well to visit this county before going elsewhere.

The crops for this year have been remarkably good, though the continued dry weather affected the oat, corn, and hay crop some. They may be considered nearly up to the average, while wheat, fruits, and all kinds of roots gave abundant yields. Remarkably light winters have improved the condition of stock, and all of the commoner kinds are greatly improved.

Much improvement in agricultural pursuits has been manifested in this county of late. New varieties of grains, and nearly all the improved machinery, have been introduced, and with very beneficial effects.

In the improvement of stock, however, there has been the greatest advancement. Many fine families of blooded cattle, while now and then a fine and even extraordinary sheep or horse is imported. The effects of this are seen in the improved articles exhibited at our recent fairs, or on our streets, and in nearly every barn on almost every farm throughout the entire county.

#### NAVIGATION.

LaPorte county contains no navigable rivers. The Kankakee, though it is quite large, can scarcely be dignified with that title, but the proximity of Lake Michigan, and the fine harbor which is constructed at Michigan City, in

this county, affords all the advantages derived from navigation trade. Large cargoes of ore, gypsum, lumber, etc, are being daily loaded and unloaded at this port in the proper season of the year, and this place, though by no means an insignificant point even now, bids fair soon to rank with the first class harbors and shipping ports along our great chain of lakes.

#### IRON.

This county contains considerable bog iron ore, of fine quality, and but a few years ago a furnace was in operation here making this into iron. Many thousand tons of very fine quality of iron was smelted and run into pig, but owing to the competition experienced with the great furnaces of Pennsylvania and elsewhere, the project ceased to be profitable, and the works were discontinued. Many thousand of tons of this ore still remain in the soil, and it awaits only a favorable opportunity to be again lifted and worked for the uses of man.

#### COAL.

Coal and stone are not natives of this county in paying quantities, although small drifts of the former and a few ledges of the latter are occasionally to be met with. The absence of these, however, is no disparagement to the advancement and prosperity of this county, as our close proximity to the rich coal fields of Southern Indiana and the quarries of Illinois, and with the facilities of railroad communication with both of those localities, bring both of these products within easy access.

#### PEAT AND MARL.

A plentiful supply of valuable peat is to be found, and as soon as the harvesting and preparing of it promises any profit, parties will be found to engage in its preparation.

Many fine beds of marl are also to be found, and this, too, will be utilized before many years, and even now is being

used to some extent. A few years hence this material will be known as the rich man's stucco and the poor man's plaster.

#### MINERAL SPRINGS.

Abundant flowing mineral springs are of frequent occurrence. The most noted of them are found in the northern part of the county, and about eight miles from La Porte City. They are known as the White and Blue Sulphur. Their flow is abundant, and from scientific analysis of the water, they are found to contain valuable medicinal properties. They are at present owned by a joint stock company who recently purchased them, with a view to their improvement. But little, however, has been done in that direction, save the walling up and covering of the springs themselves, though it is the design of this company to erect buildings, baths, etc., and convert it into a pleasant and valuable watering place. The scheme is by no means a chimerical one, but one of merit, as has been tested by the popularity of the waters wherever they have been shipped. The experiment has ripened into a reality. The merits of the waters are now established, and ere long we hope to see the object of the company fully carried to an end.

The advantages of this county have not half been told, yet what more shall I say? Churches and school houses abound in both city and country. Wealth, intelligence, refinement, energy, industry and morality, are but the common commodities and characteristics of the people; health unsurpassed by any other locality. Is there anything wanting to add to the happiness or prosperity of its present inhabitants, or to induce those seeking happy, pleasant homes to locate here?

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#### LAGRANGE COUNTY.

The Lagrange County Agricultural Society held its twenty-second annual fair adjacent to the town of La-

grange. The weather was favorable, and the fair was a success in every respect.

During the past year our society has improved the ground generally, and, for the further convenience of those bringing stock to the fair, the society furnished hay and grain free of charge. This gave much satisfaction to stock men, and made the burden of attending their stock much less; and we would cheerfully recommend this plan to other societies, believing it would induce many stock men to bring out their stock to our fairs if it was not for the trouble and expense of keeping them two or three days and hunting up feed for them. The small amount of premiums paid them will not compensate them for their trouble.

The whole number of entries at our last fair, in all departments was eight hundred and seventy-seven, being an increase of ten per cent. over any preceding fair. The display in live stock, with the exception of sheep and hogs, was excellent, both in number and quality, being the best and largest display ever on our grounds.

The display in mechanical, agricultural and miscellaneous classes, and in the floral hall, was the largest and most complete we have ever had on exhibition, and elicited general praise and admiration from visitors.

The increased attendance of appreciative spectators gave abundant assurance of the high estimation placed on an institution so fully calculated to develop the mechanical and agricultural industries of the county.

The continued success that has followed the efforts of the Board of Directors and officers in the management of the affairs of our society and the increased interest manifested by the people throughout the county, with this flattering prospect before us, we expect to be able to chronicle higher and more beneficial results in the future.

Owing to the severe drouth of the past year, our corn, oats, and vegetable crop suffered very much.

## MARION COUNTY.

The Marion County Agricultural and Horticultural Association, held its annual meeting December 12, 1874.

Our second annual fair was held at Valley Mills, September 10th, 1874.

During the past year the association has greatly increased its membership, and secured six acres of ground which with its fine shade and running water makes a splendid fair ground. A commodious hall and stock pens have also been built.

During our last fair, the weather was all that could be desired, and the occasion passed off pleasant and satisfactory to all concerned. The number of entries was double that of the previous year.

The show of live stock, especially of horses and sheep, was good.

The show of grain and fruit was excellent.

Reports on the principal crops of the county were presented at our annual meeting, from which the following statements are condensed:

Of wheat the usual amount was sown. Average per acre twelve bushels. Mostly sown in drills. One township, however, reports more than half sown broadcast.

Corn. Amount planted rather less than usual. Yield about three-fourths of an average crop. Mostly planted in hills.

The crop of timothy hay was below the average. The amount of land seeded to timothy is greatly in excess of previous years. Average price of timothy hay is about twenty dollars per ton.

Of potatoes, peach blows, early rose and buckeyes are mostly grown. Yield below average. Price eighty cents per bushel.

In breeding horses, the tendency has been to breed for general purposes until recently. But for a few years many of our farmers have given their attention to heavy draft

horses. Some fine specimens of the latter class were on exhibition at our fair. The great endurance and docile nature, together with the high prices obtained for these animals, are making them general favorites.

In the western part of our county, the production of beef is the leading object with our cattle raisers, and most of the cattle are grade short horns.

In the central part of the county much attention is given to the introduction of Alderney blood to improve the common stock for dairy purposes.

Our hogs are mostly Poland China, Berkshire, or crosses of these breeds. Our farmers long since discarded the "land sharks," and really good hogs are found on nearly every farm. A large proportion of the hogs raised here are marketed in spring and summer.

The apple crop was less than an average. Fine early apples met with ready sale at eighty cents per bushel; extra fall apples sold at about \$1.25 per bushel; inferior articles were disposed of at a loss to producers and consumers.

The peach crop was not more than half a full crop. Peach trees in this section have survived a temperature of nearly thirty degrees below zero; twelve or fifteen degrees below generally kills the fruit. Many farmers made the mistake of cutting down their trees in the spring of 1873.

The yield of blackberries was never surpassed, and in the face of an enormous glut of wild berries, the cultivated varieties met ready sale at an average of \$3.20 per bushel, or about double the price obtained for wild ones. Kittatinny and Lawton are mostly grown here, the former having preference for hardiness.

The strawberry crop was small. The unusual amount of thawing and freezing, and the ravages of the white grub, partly account for the deficiency in yield. The Kentucky has proven to be a valuable variety for field culture; the Charles Downing and Boyden's No. 30 are on trial.

The raspberry crop was light. The failure is largely owing to a want of proper cultivation. The varieties which

succeed best here are for early, Davidson's Thornless and Doolittle's Black Cap, and for late, Mammoth Cluster and Canada Black Cap.

Grape crop was excellent. Concords and Delawares are popular. One vineyard of Concords, numbering forty-two vines yielded sixteen hundred pounds of grapes. Several new varieties are on trial. An unnamed seedling, a cross between the Concord and Delaware, the property of Mr. Solomon Allen of Parke county, Indiana, came under the writer's notice; a bunch of these grapes in his possession contain sufficient sugar to dry in the form of raisins.

From an article on fish culture, read before the association, the following points are taken:

In the fall of 1873, the writer constructed a pond in three divisions, each section being about sixty feet long, nine feet wide and three feet deep. There was a large spring at the head of the first section, and several springs in the bottom of the pond; the whole supply of water being ten or twelve gallons per minute. Through the advice of Green & Collins of New York, three thousand salmon trout were procured in the spring of 1874.

They grew finely until warm weather, when those in the third section began to die, and all must have died during the summer, as no fish can be seen this fall. There were no trees near the pond, and the fish were shaded by floats made of plank.

The writer thinks the supply of water too small for the size of the pond, and thinks of procuring some of our best native fish, in the hope that they will stand the warm weather.

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### MADISON COUNTY.

The management of the Madison County Joint Stock Agricultural Association have every reason to be proud of



the success achieved by them on the occasion of their seventh annual exhibition, held at Anderson, Indiana.

The exhibition, in every sense, was far superior, and excelled any former display given by the society. From an organization which, in its infancy, was timid and fearful of success, overshadowed as it were, by the wealth, prestige, and liberality of surrounding associations, it has, in the short space of seven years, overcome all obstacles in the way of its advancement, until to-day it stands upon the roll of Indiana's local exhibitions second to no county in the State. From quiet, unassuming proportions, through wise and energetic management, it has attained a position of wealth and standing among agricultural associations, of which the whole State, as well as our own county, may justly feel proud. To refer in detail to the interest evinced in the late exhibition of this society, by the ladies and the farming and manufacturing community, would be simply to recapitulate former reports, with the addition, that the display in every department was greatly in excess of any former year. The attendance was nearly the same as that of 1873, almost five thousand single tickets having been sold upon the third day of the exhibition. The number of entries, in all classes, were one thousand and fifty. The amount awarded and paid in cash premiums was \$2,150. The association remains out of debt, with a surplus of over \$1,300. The receipts, proper, of the exhibition of 1874, amounted to \$3,242; the expenditures, including taxes and all other expenses, \$3,240.

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### MONROE COUNTY.

The officers and directors of the Monroe County Agricultural Society offered every inducement to all classes of citizens to assist in making the fair a success. At the first meeting of the directors and officers, held February 1st,

1874, they offered \$105 in special premiums on farm crops, such as wheat, oats, corn and potatoes, but to the regret of the society there was but one entry, that was on wheat, and I would suggest that the society pay the entry fee of one dollar back, as the society required three entries to be made or no premiums awarded.

There was a better crop of corn raised in Monroe county this year than has been for ten years past, and all other crops were a fair average. Our farmers deserve praise for bringing so many nice samples of the products raised on their farms to our fair. All who attended our fair will testify that it was never better represented in that line. The Superintendent worked among the business men of our town and got them to give something towards getting up an extra premium list. Although but a short time to advertise, it proved a success, by bringing more out to take a part in the fair.

The floral hall was better filled with nice articles made by the skilled hands of the ladies, than it has for several years past, and one reason, perhaps, was that the directors encouraged them by making the premiums larger. I would recommend to the officers and directors, that two or three ladies assist to revise the premium list in that department, as this is one of the most difficult parts of the list to arrange that all may be satisfied.

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### MORGAN COUNTY.

The Morgan County Agricultural Society's twenty-third annual fair, held at Martinsville, was a marked success. In the cattle department the short horns were well represented, including several specimens of the finest cattle ever brought together on a similar occasion. In this class competition extended beyond the limits of the State, there being several head of very fine cattle shown from Kentucky.

Entries of horses were large, and in quality, many of the animals exhibited have rarely been surpassed. Some fine specimens of the Morgan and Hambletonian, and other breeds, attracted much attention. Cotswold and Leicester sheep, of pure blood, and some other grades, were on exhibition. Sheep and wool growing should receive more encouragement.

Of hogs, the entries were not so numerous, but the quality was superior, consisting mainly of Chester White, Poland, big boned China, and their crosses. The agricultural and mechanical departments were well filled, judging from the quantity and excellent quality of farm products, and from information gathered from conversation, and inquiring of farmers, very few are on the retrograde; the large majority of our farms are increasing in value and in the power of production. In manufacturing, which ought to be one of the chief industries of our county, we are making slow progress.

The past year has, in the main, been favorable to agricultural pursuits in this part of the State. The average of wheat was somewhat larger than the preceding year, and the yield per acre in excess of the two years of 1872 and 1873. The corn crop was excellent; and at least fifteen per cent. greater than in 1873. Our fruit crop was abundant. Peaches, apples, and small fruits of more than average quality. Floral and fine art halls were tastefully decorated and contained creditable displays. The attendance of citizens and strangers was unusually large. The society is free from all embarrassments and indebtedness, and its future prospects, for usefulness, highly gratifying.

Receipts from all sources, \$2,103.95; expenditures, \$2,103.83.

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## NOBLE COUNTY.

The nineteenth annual fair of the Noble County Agricultural Society was held on the fair grounds in Ligonier.

The fair was well attended throughout, showing a very marked interest over former years. Owing to the drouth in this locality the number of entries in the line of farm products was not as large nor as good as heretofore. But the number in the mechanical department was much larger and of a better class. The exhibition of horses and cattle far exceeded former years, not only in numbers but also in quality, a great many fine thoroughbred horses and Durham cattle being among the number. The farmers and stock raisers in this county, owing to these fairs bringing their inferior stock in contact with good stock, see the importance and advantage of raising blooded cattle and horses. For it is only when a comparison is made that they are ready and willing to acknowledge the inferiority and superiority of the different breeds. To excel is an inherent nature in man, therefore the lively interest in this locality in that direction. It is not only a matter of pleasure to the observer, but is a matter of dollars and cents, and our farmers are becoming prosperous and wealthy.

A new and better ground was purchased and is being fitted up, with double the amount of ground the old one contained. It will afford much better advantages for the coming year. These grounds are owned by the Ligonier Park Association, which has been duly organized, from which the Noble County Agricultural Society will take a lease of the ground, on which to hold fairs from year to year.

Our citizens are alive to every thing that will afford advantages for the improvement of the county. Manufacturing establishments are being formed for the purpose of manufacturing our valuable lumber, walnut, poplar, etc., of which this county can boast of having as good as the State affords. Our county contains a great many fine lakes from which could be derived a good revenue from the raising of fish. It is hoped the State society will take some steps in this direction. There is no reason why this county should not sell as many fish in one year, in course of time, as the report shows that Michigan City has sold, (twenty-seven thousand dollars worth). We also have some pretensions to ores

and minerals, and think that if the State Geologist would give us a call and make an examination, our county would be found to be rich in that line. We hope in future to give you a more extensive and interesting report.

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### PERRY COUNTY.

The Perry County Agricultural and Mechanical Association held its third annual fair on the society's grounds, situated one quarter of a mile northwest of Rome, and was a success. The display of live stock showed a great improvement over last year, and there were twice the number of entries. The agricultural and mechanical department was well represented, as also the ladies department, which was well filled with their handiwork. We have purchased grounds, and had them fenced with a tight board fence six feet high, built a hall thirty by sixty-two feet arranged for articles of the different departments, a ladies dressing room, and music stand in center of show ring. We have no time track, neither do we offer premiums for fast stock. Our organization is for the benefit of the farmers, and not for jockeys. We have a sufficient number of stalls erected for the accommodation of stock of all kinds, and we are still improving our grounds by erecting an amphitheater capable of seating two thousand persons. The officers and members of the society feel greatly encouraged by the manner in which the citizens of this and adjoining counties have sustained their efforts, and look forward to the future, feeling that with proper and judicious management we shall do better. In regard to crops, they were below an average.

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### PUTNAM COUNTY.

The nineteenth annual fair of the Putnam Agricultural Society was held a month earlier this year, beginning the

17th of August. This was thought to be a less busy time with farmers, crops having been housed, harvest over and the fall work—wheat sowing, corn cutting, etc., not yet begun.

Although the weather was very unfavorable a greater part of the time, very dry the first part of the week, and very wet the latter, the attendance was good, and it was one of the most successful fairs ever held in the county.

A large number of special premiums were offered by our enterprising citizens, some of them very valuable ones.

The entries in all departments were large, especially in the live stock classes.

An entry fee of ten per cent. was charged in all departments except the floral, and on special premiums, which being the voluntary contribution of citizens were allowed to be contested for free of charge. •

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## PORTER COUNTY.

The fourth annual fair of the Porter County Agricultural Society was held. Good weather prevailed, and as heretofore much interest was manifested for the success of an exhibition which scarcely fell short of any of its predecessors in good attendance and in general display.

Whether a fair is the agency of good or bad results we shall not endeavor to say, but it is nevertheless true that nothing affords us a better data from which to approximate at the thrift and enterprise of a locality, than the interest taken by the people in the yearly exhibition of the products of the soil and the workshop.

Where a spirit of enterprise exists in a community to any considerable extent, a fair is rarely if ever a failure, when properly managed. Our society is comparatively in its infancy, yet we think has not failed to leave evidences of much good already accomplished. Since the lapse of four

years, our people have learned better how to appreciate any excellence attained in the field of agricultural and mechanical science, than they were capable of, previous to the existence of our association.

A sense of pride has been cultivated which proves to be very beneficial. Men have assumed the attitude of rivals contending for the ownership of the best. More especially is this the case among stock raisers, in consequence of which a marked improvement has been made in the show of stock of all kinds, and notwithstanding the dryness of the season the display of agricultural products and fruits was never better, and it is very probable that the same improvement has taken place in other branches of industry and art, although not so apparent to actual observation.

The number of entries received was not in excess of the number received in 1873, but the selections seemed to be made with greater care than at any previous fair.

It was feared that the partial failure in crops and the "hard times" would tell upon the finances of the society by a decided falling off in the receipts, but contrary to expectations the effect was scarcely felt.

An exhibit of the receipts and expenditures shows a falling off in the total receipts, and an increase in the expenditures as compared with last year's statement, which leaves the society in a less prosperous condition financially than it was at the close of last year.

This may be accounted for in two ways, and argues nothing against the interest taken by the people, nor does it predict anything discouraging for the future.

The decrease in the amount of receipts was owing to the fact that a smaller sum was realized from the sale of privileges than is usually received from that source, and it is a question with many whether it is not better to sustain a moderate sacrifice, rather than to extort money indirectly from the people through high licensed eating stands, and divers other objects of attraction, paying a high tariff to the society, at the expense of those who favor us with their patronage.

It was necessary to increase the amount of premiums offered in every department to make some new classes, and for the first time to recognize the true worth of a time track in what had heretofore been known as an agricultural fair, by offering inducements to the proprietors of fast stock in proportion to their worth.

Such was the plan adopted by our society for the year 1874. At the close of our trial we are of the opinion that it is the only plan capable of being successfully carried out in a county of mixed industries, where it is necessary to introduce as many different features of attraction as possible in order to keep alive that interest requisite to pecuniary success. In order to avoid criticism, great discretion should be used to have premiums as nearly equalized as possible. There is a mistaken idea prevalent that the size of the purse adds to or detracts from the charm of a race in proportion as it is high or low. The members of our society are pretty generally of the opinion that such is not the case. One year's experience has convinced a majority of them that more money was invested in this direction than proved to be remunerative, besides having a tendency to cause dissatisfaction among exhibitors in other departments. Our trotting was mostly by horses owned in the county, and without doubt would have made as good time and afforded the same amusement for half the money they drew from the society in the shape of premiums.

Nor do we think it practicable for us to imitate the example of ordinary race-course associations, by offering monied inducements to the proprietors of horses famous for their turf record. In a county of our population the fanciers of the turf bear so small a per centage to the rest of the inhabitants that the board of directors would not be justified in offering a purse sufficiently large to secure the presence of such horses.

Upon the whole we have done nothing to complain of that will not benefit us in the future. The present indebtedness is upwards of four hundred dollars, which it is the intention of paying at the close of the next fair. We



are made to feel more certain of our ability to discharge this obligation from the fact that over three hundred dollars was expended in improvements during the last year, which if applied to the present debt would have put the society in comparatively easy circumstances.

The corn crop of the county was short of the average yield. Oats but little better than a half crop. The yield of wheat was not more than half the amount usually produced.

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### PARKE COUNTY.

The Parke County Agricultural and Horticultural Society held its annual fair adjoining the village of Bloomingdale. The attendance was not large, though quite orderly, and every one appeared to enjoy themselves, and everything passed off smoothly and quietly. The premiums in the domestic department were paid in different kinds of glass and silver ware, and gave good satisfaction. The whole number of entries was only 691, a very small number. The people in the immediate vicinity are not a fair going people. Our patronage is mostly from a distance. The Board are considering the practicability of removing the fair to the county seat, or some other point more accessible by railroads, etc., with the view of securing a better attendance. Our exhibitions would do credit to any fair, and we pay higher premiums according to our receipts than most of our neighboring societies, but exhibitors of stock complain of a want of appreciation, by the meagre attendance.

The general crops of our county were good. Wheat and corn full average yields. Oats light crop. Hay crop good and well secured. Pastures in the early part of summer very fine, later in the season suffered from drouth. Our county is well adapted to the growth of grass, as well as wheat and corn, which have been regarded as the staples. Our county is regarded as one of the best wheat producing

counties on the Wabash river, and we think will soon take rank with any in the State for beef cattle, and fine short horn cattle, as the herds of Collings & Dunham, of Bellmore, and Thomas Nelson & Sons, of Bloomingdale, Parke county, show very fine specimens at our fairs, and have real intrinsic value to the common farmer, as well as the fancier in such cattle. These gentlemen deserve what they are now realizing, good patronage and good sale for their stock. We notice the introduction into our vicinity of a new kind of sheep—the Oxforddown. They may be found on the farm of T. Nelson & Sons. They are equal, we are told, to the Southdown for mutton, and are larger and far superior as wool producers. We hail the introduction of them for the future good of our county.

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### PIKE COUNTY.

The Pike County Agricultural Society would respectfully report, that the year just closed has been one of great success and present indications of prosperity are very gratifying. Our first three fairs adopted the plan of taxing exhibitors, believing that it was a financial necessity, but the money thus obtained was at the cost of restricting the number of exhibitors, while our displays were poor and unsatisfactory.

The managers of our fourth fair, convinced that the measure was judicious, abolished entry fees, except for sweepstakes and speed rings, and the result has been most satisfactory.

The encouragement thus given brought together the finest collection of stock ever seen in the county, while the expectation of a superior fair increased the number of visitors beyond that of any preceding exhibition, and the society has been enabled to improve the grounds, build new stock pens, pay all the old debts, current expenses, and commence the new year with a surplus in the treasury.

We were favored with the very nicest of weather, and it seemed as if every one that could, attended. The show of stock was good, especially that of hogs and cattle, of which there is general improvement in our county since the commencement of our fairs. Our accommodations for stock were greatly increased over last year, but this year all our stalls and pens were filled. Our grounds are in good repair, and I believe it is the universal opinion that we have nicer grounds than any county adjoining us. We have fifteen acres enclosed, all covered with nice shade trees, and perfectly level. Our time track is one-third of a mile and is one of the finest in the State.

Our crops have been abundant for the past year. Our wheat crop was at least one-third better than ever before, some crops averaging as high as forty-two bushels per acre, a sample of which was given Prof. Cox by M. L. Waltz.

Our farmers are taking great interest in all kinds of agriculture and stock raising, and the fruits of our society have been to stir our farmers up in every thing that interests the farmer or mechanic.

The society is indebted to Prof. E. T. Cox, our excellent State Geologist, for a lecture, on the third day of our fair, which was interesting and highly appreciated by our citizens, and the officers and members of our society return to him their thanks for devoting his time and talent in our behalf.

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## STEUBEN COUNTY.

This society held its annual fair at Angola, the county seat. The society, owning no grounds, held their fair in the spacious oak grove of Dr. George W. McConnell, in which is improved a fine half mile track for testing the speed of horses, as well as showing to advantage the style and quality of carriage and buggy horses. And so choice a collection of animals for the turf, the carriage and the

farm, from this and adjoining counties, as were congregated on the second day, has seldom been equalled and never excelled.

The society has organized a joint stock association for the purchase and permanent improvement of grounds, which it is hoped will be pushed to completion by another year. Financially, the fair was a success.

The varieties of wheat raised in this county are so numerous that but few of the leading varieties can be named. Among these may be mentioned the White Mediterranean or Amber, Egyptian, Deal, Blue Stem, Lancaster—all regarded as excellent varieties and suited to our varied soils of sand, clay, gravel and loam.

Amount sown, from one and a-quarter to one and a-half bushels per acre. That sown with the drill, requiring about one-quarter of a bushel less seed than that sown broadcast. First, because it is better covered. Second, the ridges formed by the drill continue to cover the roots in winter, while by broadcast sowing they are thrown out. The yield averages fifteen bushels per acre. Average price \$1.00.

Corn.—Varieties numerous, large and small varieties, red, white and mixed, producing under good tillage forty to sixty bushels per acre, costing producers twenty-five cents per bushel, bringing in our market fifty cents.

Rye, Oats and Barley.—Used for seed, from two, to two and a-half bushels per acre. Very little rye and barley sown. Average of oats forty bushels per acre. Price thirty to forty cents.

Grass.—Most valuable, timothy and clover red top, for low grounds. Clover seed, four to six quarts sown per acre. Timothy seed eight quarts per acre. Red top three quarts per acre. Yield, one and a-half tons. Price this year, \$16.

Dairy.—Produce of butter, per cow, 100 pounds. Price twenty cents. Cost of production fifteen cents. Cost of production of cheese eight cents. Price fourteen cents.

**Neat Cattle.**—Favorite kinds, natives and Durhams. Best for milk—natives and grade Durhams. Best for beef—Durhams. Cost of raising three year old steers, twenty-five dollars. Worth at that age, thirty-five dollars. Cows worth twenty-five to thirty-five dollars.

**Sheep and Wool.**—Sheep and wool raising deemed profitable both for wool and mutton. Our breeders select the largest carcass with heavy wool; these are frequently procured from crosses of Merino with heavier sheep.

**Hogs.**—Are deemed profitable. The Poland China or Magic, and Chester Whites, also the Essex among the best breeds. Pork worth eight cents per pound, dressed. Hogs mostly sold gross; price six cents.

**Potatoes.**—Most profitable varieties, Early Rose, Peerless, Russet and Peach Blow. Planted in rows three feet apart each way; cultivated with plow and hoe; average yield 125 bushels per acre. Colorado bug has injured the crop for the last three years; its effects perceptibly less the past season. Price fifty cents.

**Fruit.**—The different varieties are apples, pears, grapes, peaches, cherries and all kinds of berries. Apples worth fifty cents for winter fruit. Cost of production twenty cents, perhaps less.

**Soil and Timber.**—We have in this county a great variety of soil. Sand prairie, loam, gravel, clay, and wet marsh susceptible of drainage, well adapted to the various grasses, while the more elevated lands are well suited to wheat, corn and oats.

Our timber land grows the oak, hickory, walnut, beech, sugar maple, white wood, ash and lynn in great perfection.

Our best method of improving wet land is to drain with open ditches.

### TIPTON COUNTY.

The Tipton County Joint Stock Agricultural Society held its annual fair at Tipton. The weather being unusually fine during the fair, the extent of the display in the various departments was equal to the efforts of the people and fully up to the expectations of the most sanguine. In point of excellence the display was above an average, and a commendable degree of judgment and care was shown on the part of exhibitors in making their selections. The attendance was over an average. We have expended some two thousand dollars in making improvements, consequently we are some fifteen hundred dollars in debt, but we have borrowed money and paid the entire indebtedness of the society. Tipton county has over an average crop of corn, wheat, oats, and vegetables of all kinds. This county is well adapted to all kinds of grasses. In point of stock, we think we can compare with any county in the State.

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### TIPPECANOE COUNTY.

The Tippecanoe County Agricultural Association, held its annual fair for 1874. The weather was favorable with the exception of Friday, the fifth day of the fair, which was very rainy and disagreeable, and detracted largely from the attendance on that day.

By common consent, Thursday and Friday have become the days on which the people in this part of the State expect to attend the fairs, and, in consequence, the first three days of the week have been devoted to getting ready for the grand displays of Thursday and Friday. This makes the success of the fair depend entirely upon the state of the weather on these two days. The directors of this Association foreseeing the evil which must sooner or later fall

upon the enterprise if this custom were allowed to continue, arranged their programme so that the fair this year should be attractive throughout the week ; and the wisdom of this step has been fully realized. The exhibitions were so arranged that, notwithstanding the heavy rains which fell during the week, the aggregate attendance was greater than ever before.

The exhibitions of horses for general purposes, and for heavy draft were quite satisfactory ; the entries being numerous, and the specimens shown, especially in the ring for heavy draft, were considered very fine.

We consider, that, for the amount of money invested in the speed ring, the exhibitions were far below what the Association had a right to expect. The character and tone of the races were unworthy of our fair, and wholly undeserving the liberal inducements extended to this department.

The show of blooded cattle gave the highest satisfaction—four fine show herds were entered and exhibited, and in addition thereto a large number of individual entries were made in the same class, representing the States of Kentucky, Illinois and Indiana. Several of these fine animals were purchased by farmers in this county. The impression made on the public mind by the exhibitions in the class of blooded cattle was such as to guarantee success in this department if carefully managed for years to come.

There was a large increase in the numbers of sheep exhibited this year over any former year, covering all the grades of fine wools, long wools and mutton sheep, which are imported into or bred in this section of the country.

In the matter of improved breeds of swine, it was a noticeable fact that the Berkshire is the leading hog among the farmers of this and the surrounding counties. A good many fine specimens of the Poland China were also on exhibition, but the Berkshire, for the present at least, is the favorite breed.

This association gives cash premiums almost exclusively,

which, so far as we are able to observe, gives better satisfaction than any other plan of prizes yet proposed. The spirit of liberality which has characterized the directory of the association since its organization has redounded largely to the interests and profit of the enterprise, and of agriculture in the community. Where money would achieve any object of general welfare it has been given freely.

Good order habitually prevailed throughout the week of the fair.

The whole community take an interest in the affairs of the association, and feel the highest pride in its success, and it has been the constant care of the management to so conduct the affairs of the association that every citizen shall feel encouraged to give it countenance and assistance.

The largest attendance on any one day was 15,000, which was on Thursday.

Entries.—Horses, 226; jacks and mules, 15; cattle, 102; sheep, 116; swine, 165; miscellaneous, 900. Total, 1,524.

Receipts from all sources, \$11,024.35. Expenditures, \$8,227.30. Net proceeds of the year, \$2,797.05.

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## VIGO COUNTY.

The fair of the Vigo Agricultural Society was a decided success. A good display was made of all farm products and live stock, and the miscellaneous hall was resplendent with the handiwork of our ladies, and a good display was made in our mechanical department.

The display of Short-Horns was very fine. We offered \$5,000 in premiums, payable *pro rata*. After paying expenses there was only sufficient to pay three-fourths of the amount named in the catalogue. We believe, however, that it is best to offer large premiums, and pay as much as



possible, instead of small premiums and pay them in full. We have not been charging an entry fee, except in the fast ring, where we make them pay their own way.

We have every advantage at Terre Haute for a good fair. Nine railroads completed render it accessible to all the surrounding country.

We have seventy-five acres of land; twenty-five in a beautiful grove and fifty in meadow, with a first-class mile track. Our buildings are good, but not what they should be. Something more than sheds is needed to protect fine and costly fabrics, but we are progressing, and expect to improve each year.

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### WARREN COUNTY.

This society was organized in May last on the joint stock plan with a capital stock of \$6,000, which has since been increased to \$20,000.

The society purchased thirty acres of beautiful elevated land at a cost of \$85 per acre, and enclosed the same with a substantial board fence, and erected first class buildings: Amphitheater, 24 by 154 feet; floral hall, 24 by 80 feet, and 18 feet high; agricultural hall, 24 by 64 feet; dining hall, 24 by 55 feet; ladies' room, 18 by 22 feet, all under shingle roof and painted white; Secretary's office, 14 by 24 feet; President's room, 14 by 24 feet. The Judges' stand is a neat, two story building, with ample room for music. The track is enclosed with a board fence on outside and a neat picket fence on inside, completely protecting the ring, and measures a-half mile. The stalls for horses and cattle number 176, and are built in the best of style. The hog and sheep pens number 52, all under shingle roof. The society has sunk four wells at convenient points which furnish an abundant supply of water for man and beast. There

is not a shed building on the grounds. All are of dressed lumber, shingled and painted.

The first annual fair of the society was held October 6th to 10th inclusive, and was a success beyond expectation. The number of entries being 806.

The show of horses, cattle, swine and sheep, were very fine, and the halls were filled to overflowing, there being a large number of articles on exhibition not competing for premiums. This society made no charge on entries or stalls, desiring to encourage exhibitors. Gate charges—Family badge, \$1.50; single ticket, 25 cents; team tickets, 50 cents; single horse, 25 cents. The society will adopt the single ticket system hereafter to guard against fraud.

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### NORTHEASTERN INDIANA.

The third annual exhibition of the Northeastern Indiana Agricultural Association was held at Waterloo, Dekalb county, Indiana, in October.

The weather, on which to a great extent depends the success or failure of all fairs, was delightfully pleasant. The first day was especially devoted to making entries and arranging articles for exhibition.

From the large number of entries that had been made, the officers were sure of success. Every one in attendance either as visitor or exhibitor expressed their entire satisfaction with the management of the fair, as everything had been done by the officers that could be done to insure success financially; and in giving to our people a chance to enjoy a good holiday season, the officers had forbidden the bringing of anything upon the grounds that would have a tendency to demoralize or defraud those that attended the fair. No intoxicating liquors of any kind were allowed to

be sold on or near the grounds, neither would the officers allow any games of chance. The display of wagons, carriages and buggies was excellent. Manufacturers were there with their work from Ohio and Michigan, and from a great many places in our own State; the display in number exceeding the one at our State Fair.

The show of stock was fine indeed, some of which had been shown at our State Fair and had taken first premiums in their class. There was stock shown here owned in Kentucky, Ohio, Michigan and Illinois—among which were some fine blooded horses, Short-Horn and Devon cattle, Berkshire and Poland China, and other fine breeds of hogs; and Cotswold and Southdown sheep. Before the organization of our association, there were but few horses, cattle, sheep, or hogs of the improved breeds to be found in this part of the State; but at our last fair, was shown many animals now owned in this county, that will compare favorably with any in the State, and it is almost surprising to see the interest manifested by many of our leading farmers in the introduction of better stock into this part of the State.

Receipts of fair for the three years:

For 1872, \$1,905.51; for 1873, \$3,030.60; and for 1874, \$4,178.12.

Premiums paid: For 1872, \$897.25; for 1873, \$1,439.50; and for 1874, \$2,258.00.

Number of entries; for 1872, 585; for 1873, 874; and for 1874; 1,382.

The above figures we think will show the society to be in a flourishing condition.

We are glad to be able to say to the members of all the Agricultural Associations in the State of Indiana, that the year of 1874 has been one that will long be remembered in the northeastern part of the State, as an encouraging one to the farmers. Crops of all kinds have been fair, and some of them unusually good, and while it has been almost too dry for all kinds of crops to grow as luxuriantly as some might wish to see them, yet the drouth has been a blessing

to many farmers, as it has enabled them to clear up low lands, that would have otherwise have been worthless; and hundred of acres of this description of land has been added to the producing lands of the State.

The thanks of the Association are due to the officers of the railroads centering in this place, for their kindness in running special trains at reduced rates for the accommodation of those visiting our Fair.

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### SWITZERLAND AND OHIO.

This is the third year of the Switzerland and Ohio County Agricultural Society. Our annual exhibition was held in September, and was well attended by visitors and exhibitors.

The grounds are located at East Enterprise, and embrace a beautiful shady grove of oak and maple trees, making a delightful place to visit. It has been the desire of the board to do away with all the objectionable features attending annual exhibitions, to encourage and stimulate all branches of useful industry, and thus be a permanent benefit to the county.

The show of stock was very fine, especially in horses, mules, and cattle. Several fine herds of Short-Horns were shown. The agricultural department was well filled. The show of ladies handiwork was splended. The display of mechanical work very good; in short, the exhibition was a success; and while other societies complain of their lack of support, we congratulate ourselves upon our continued prosperity, and will endeavor to still improve and beautify the grounds and increase our premium list that there will be no possible chance of failure.

September 9th will be the commencement of the next fair, at which time we will be pleased to entertain friends from abroad, and *particularly* members of the State Board.

### RUSSELVILLE UNION.

The nineteenth annual exhibition of this society was held on their fair grounds near Russellville. The attendance was good, notwithstanding the threatenings of rain Thursday, and a continuous rain on Friday until noon.

Total stock entries, 364; entries made in the various other departments, 541; total number of entries, 905. The stock and articles shown were many of them quite superior and well worthy the premiums awarded, and general satisfaction prevailed.

The Treasurer's report shows the receipts of the fair to be \$2,011.40, which was paid out in premiums and improvements on the fair grounds, leaving the society free from debt. This exhibition of the society was a fair success, and the board of managers are making valuable and permanent improvements on their grounds, and intend making them as attractive as any in the State.

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### BOONE, CLINTON AND MONTGOMERY.

The Thorntown Union Agricultural Association, though the past season has been a hard one on fair associations, are pleased to report to you a grand success, not only financially but in the display in all departments at our exhibition. Our Board of Directors, most of them, have been continued in office from the organization of the association five years ago, and have become fully acquainted with all the arrangements necessary to satisfy exhibitors and please visitors.

Our fifth fair was held, and was very largely attended. The interest manifested by the members of the society, as well as by the people, was such as to warrant the belief that our society stands high in the estimation of the citizens of

the counties interested, and speaks well for the interest the people in this part of the State take in the improvement of live stock, the mechanical arts, and agricultural pursuits.

The number of entries in the several departments were as follows:

Live stock, 671; agricultural, 500; horticultural, 78; mechanical, 144; fine arts, 345; miscellaneous, 122. Total, 1860.

The large number of entries made, and the amount paid in cash premiums, speaks better than words for the interest taken by exhibitors in this fair.

Total receipts, \$3,931.75. Total expenditures, \$3,515.43. Balance on hand, \$416.32.

This leaves a nice balance on hands for the use of the association in improving and beautifying their large grounds, and the encouragement the Board has had from the past year, will stimulate the officers to still greater efforts for the year 1875.

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## FOUNTAIN AND WARREN.

This society was organized in the year 1862, by uniting the counties of Fountain and Warren as an agricultural district; and has continued to hold fairs and exhibitions, and encourage agriculture, and sustain the agricultural interests of the State to the present date.

In December, 1868, it was decided to lease new and more convenient grounds, which was done, and good, substantial buildings were erected, with a good fence, gates, and other conveniences to accommodate exhibitors and guests. The grounds are located about one-half mile from Attica, in Fountain county, and has a good track for the trial and exhibition of horses, good running water, and the grounds are nicely fitted up for the purpose for which they were intended. The last fair held on the ground was quite a success.

There were some 683 entries in all classes, and the liberal premiums offered were all paid in cash, and all expenses properly liquidated.

Last year, owing to the sickness of some of the principal officers, and the failure to find persons to fill their places, no fair was held; and at a meeting of the society it was decided to keep the organization in good working order, their fair ground in good repair, and postpone the time of holding the next fair until September, 1875.

The soil of our counties is unsurpassed, for fertility, in the State. There is quite a large portion of these counties composed of what is designated barrans upon which our farmers raise some of the largest crops of wheat produced in the State.

Our timber is very good, and our prairie lands are the best in the west for grass and corn. Large numbers of the best hogs and cattle are raised and shipped, which bring the very best prices.

These counties are very rich in coal and iron ores. The coal mines are extensively worked, and furnish labor for many hands, and bring large sums of money among us.

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### SULLIVAN COUNTY DISTRICT.

The Gill Township Agricultural Society held its fair at New Lebanon, Ind. The society have grounds leased for ten years, containing twenty acres with beautiful shade and plenty of water.

The show in all departments was very good. The society is out of debt and have opened their gates to the world in every department for next year. The crops throughout our county are good; wheat over an average—a great many farmers having a yield of 30 bushels and over. Corn, although planted late, made a pretty good yield. The potato crop was much lighter than usual. Our soil is generally fertile, and well adapted to the production of corn,

wheat and almost all kinds of small grain and vegetables. The county is almost level and a little rolling near the water courses.

Since the organization of our society many of our farmers seem to be acting with a new impulse, and have caught the spirit of improvement, they are getting tired of the inferior *native cattle*, and are bringing in fine blooded Durhams. And instead of the old "hazel splitter or land sharks," many of them can show thoroughbred Berkshire, Poland, China and Chester White hogs, in fact, our whole county is becoming awakened to the interest of agriculture; till the soil better; grow more to the acre, and raise better horses, sheep, hogs and cattle.

Our exhibition of 1874 passed off very quietly without any intoxicating liquors being on or near the grounds, and we have fine prospects for 1875. The ladies taking a great pride in our success, tried to out do each other, making our floral hall the center of attraction.

Our society offered a premium of \$20 for the best worked road in any district, which they think resulted in a benefit to the whole county.

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### SOUTHEASTERN INDIANA.

The Southeastern Indiana Agricultural Society held its sixth annual fair on their grounds adjacent to the city of Aurora, Dearborn county.

This society is patronized from the counties of Dearborn, Ohio, Ripley, Switzerland and Franklin, of this State, Boone county, Kentucky, and Hamilton county, Ohio. It being a joint stock association, there are about one hundred and fifty stockholders, whose families are admitted free. And this year we discontinued all charges for admitting animals and vehicles, together with all per centage on entries, and only charged twenty-five cents admittance to persons over fifteen



years, and fifteen cents for those between nine and fifteen years. All under nine years old admitted free. And reduced premiums with a view of smaller receipts.

Total receipts of the fair, \$1,418. Total expenditures, \$1,158.55. Balance on hand, \$259.45, which will about liquidate all the society's old indebtedness. Our fair grounds are pleasantly located and well fitted up, with sufficient shelter to accommodate five thousand people. Yet by comparing this with former reports it is plainly evident that there has been a great falling off in the interest formerly taken in this society, and our last fair was below the average. For this we might give as reasons:

First—When this society first organized it was conducted on moral principles, excluding all gaming institutions and side shows, the society making, exclusively, its own exhibitions. Since which time things have been gradually introduced which have proven offensive to the moral element of community. However the sales of such privileges may have proven remunerative to other societies, they have tended to lessen the receipts of this one.

Second—The two largest towns in this vicinity, Aurora and Lawrenceburg, have mostly discontinued their support, in consequence of such a large per cent. of their male population being so much addicted to the use of beer and other stimulants that they openly declare they cannot, and will not, attend any place of recreation where the sale and use of liquors is prohibited. Hence one party will not tolerate the conditions that would insure the attendance of the other, and the society, by trying to occupy a compromise line, is fast losing the support of both. Two such discordant elements will not work together, and the whole moral community have the right to say which shall yield, that agricultural fairs may accomplish the results for which they were originally instituted.

Third. The Cincinnati Industrial Exposition being held at the same time in such close proximity, with convenient and

cheap railroad and steamboat transportation, has drawn heavily upon our patronage.

Yet, with all this we have reasons to believe, that in a few years these great city expositions, which serve more the curiosity than the interest of agriculturists, will cease to be so attractive to the rural population; and by returning to first principles, and conducting the fairs for the moral culture of the masses that better element will return their support, which will insure success.

At all events it is our duty to maintain such institutions in districts or counties where the masses of laboring people can commingle, and where the interests of all, both rich and poor can be subserved, for to allow all such things to be conducted at the prominent cities, by persons in affluent circumstances, and only be enjoyed by people of means, will have the evil tendency of working an estrangement between the two classes; and withhold the influence of moral light and knowledge designed to be imparted by such institutions. Rather than yield the management of the agricultural societies to the rowdy and immoral classes, who seek their control, we had far better use our influence to put all such societies out of existence.

It is not the great amount of money that may be handled by an agricultural society, that makes it profitable or popular; but the proper management and the moral influence it wields in the community. The very erroneous, or we might say foolish idea entertained by many who assume to manage fairs, that it is to the interest of the society to obtain money for its use without regard to the rules of propriety and too often compromise the society into the appearance of dishonor, thereby sinking them into disrepute.

Every society should offer for premiums just what they think themselves able to pay, without taking too much risk, and allow all exhibitors to enter free. This would tend to bring out animals and articles and enhance the interest in the exhibition. In conducting a fair the managers should avoid setting the least color of an example that would give

an excuse to gamblers. This can be done without excluding speed rings, for to develop the speed of certain classes of horses is not only entertaining, but of deep interest to the community at large; and it would be a shame on the country if such things could not be exhibited without the horrid examples of gambling that is often set at such places.

Reform is now demanded in many other things, and we should have it in the conduct of our fairs.

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### FALL CREEK AGRICULTURAL SOCIETY.

The seventh annual fair of the Fall Creek Agricultural Society was held one-half mile south of the town of Pendleton, Madison county, Indiana. The attendance was large, and the exhibition a complete success.

The number of entries in the several departments were large, and especial mention should be made of the ladies' department. Floral hall is always successful. The ladies are always ready to fill our large hall with beautiful specimens of their handiwork.

The live stock department was above the average.

Receipts, \$1,289.17. Expenses, \$1,286.92.

The county supporting the Fall Creek fair compares favorably with any in the State, as the following report of shipments will show:

The number of bushels of wheat sold and stored in our warehouses during the past year amounted to nearly 150,000 bushels. This is exclusive of what is retained by our farmers for home consumption.

Flax, 12,000 bushels; corn, 45,000 bushels; oats, 3,000 bushels; clover seed, 1,000 bushels; timothy seed 1,000 bushels; hogs, nearly 10,000 head.

These are the shipments of our warehouse men. There has been other shipments by individuals.

## UNION AGRICULTURAL ASSOCIATION.

The Union Agricultural Society of the counties of Henry, Rush, and Hancock, held its fair at Knightstown, Indiana.

Upon the election of the new Board for the year 1874, there was found a general lack of confidence in the future success of such organizations, there being a strong disposition on the part of many of our citizens to discontinue their former habit of attending fairs and other places of amusement. But notwithstanding all this, the new Board revised the premium list, keeping it up to its full standard of excellence.

The attendance at the fair was the largest of any season since the organization of the society, and the general expression of good will seemed to have no limit—friends meeting friends, and commingling together in a grand and happy reunion, all going away with satisfaction written upon their countenances.

As to the exhibitions in all their departments, they were full and complete, and especially so in the stock department. Too much can not be said in praise of the care and attention farmers and breeders are paying to the improvement of their stock, which they are rapidly bringing to the highest state of perfection.

I can not refrain from making special mention of the fine display in the floral and art halls. The display of needlework being of the finest quality, and the most extensive display ever on exhibition in the State.

And as to the agricultural and mechanical departments, there seemed to be nothing lacking. There was every thing on exhibition that could possibly be produced by that art of husbandry, or that could be added to lighten farm labor, or to the improvement of farming.

In conclusion I will say, that the fair was a grand success, and too much can not be said in praise of the energy and industry displayed by the Board in bringing about such a grand result.

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## PLAINFIELD HORTICULTURAL AND AGRICULTURAL SOCIETY.

This society, known for many years as the Plainfield Horticultural Society, in the beginning of the year 1874, changed its constitution so as to include agriculture in its investigations, and appointed standing committees on farms and their products, live stock, and on poultry. These committees, together with the standing committees on the various subjects pertaining to horticulture, are expected to report at every meeting, and to produce a written report on each subject annually. During the year 1874, we have held thirteen meetings of the society, eleven of them at the houses of the members, at which, besides the reports from the standing committees, we listened to essays on the following subjects:

Gardening, fruit and vegetable canning, horticulture, pisciculture, propagation of plants, melon culture, grape culture, and pear culture.

At one of the meetings an exhibition was held of fruits, flowers, and vegetables. No premiums were offered. At almost all the meetings some fruit or flowers have been on exhibition.

# INDIANAPOLIS.

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*(Submitted by Cyrus T. Nixon, Secretary M. and R. E. Exchange.)*

In reply to your inquiry about Indianapolis, the Capital of the State, I have the honor to submit the following, viz;

Population, 1850, 8,091; 1860, 18,752; 1870, 48,244; 1874, 100,662.

The value of taxable property has been as follows: 1851, \$5,533,555; 1860, \$10,917,420; 1870, 24,447,825; 1872, \$34,746,026; 1874, \$67,062,039.

During the years 1872, '73 and '74, there was sold in Marion county real estate to the value of \$66,500,000. The sales of real estate are now amounting to over \$1,000,000 per month.

As a lumber market, especially for hard woods, Indianapolis has no superior. The State of Indiana abounds with immense forests of oak, beech, ash walnut, and other timbers, which, after being sawed into lumber, are brought to this great railroad centre, and from here distributed to every part of the commercial world. The annual sales of lumber at this point will approximate 200,000,000 feet.

Indianapolis, as a manufacturing point, is now attracting the attention of manufacturers from the manufacturing districts of the Eastern States and of Europe.

The Secretary of the Board of Trade of this city, in his annual report for 1873, places the value of manufactured articles for that year, at this point, as high as \$28,000,000, and the number of hands employed in the various manufactories at over 8,000. Since the year 1873, a large number of

new manufacturing establishments have been commenced, and though the year 1874 was an extremely hard year on manufacturing interests at other points, there was but little embarrassment felt here; and it would be safe to say, that the value of manufactured articles for 1874 was above \$30,000,000, and the number of hands employed over 10,000.

With an abundant supply of the cheapest and best coal in the world, an inexhaustible flow of pure water, the finest forests, and lumber, and the greatest railroad centre in the West, with deposits of iron ore near us in every direction, with hundreds of acres of land adjacent to the city to be freely donated for manufacturing purposes, with our magnificent free schools, and being the most cheaply taxed and beautiful city of the West, no wonder Indianapolis is becoming a great manufacturing point.

The sales of merchandize at this point amounts to about \$80,000,000 annually.

Indianapolis is one of the leading cities in the pork interests, and now slaughters annually about 500,000 hogs.

She is a city of churches and schools, having within her corporation about 125 edifices dedicated to these purposes.

More than 2,500 dwellings and business houses were erected here in 1874, at an aggregate cost of over \$9,000,000. Some of these buildings are of immense size, and display the finest of architectural beauty, and cost from \$300 to \$150,000 each. The indications are, that almost twice as many buildings will be erected in 1875 as were erected in 1874, and that we shall add from 20,000 to 25,000 to our population.

With all these facts in view, can any one wonder that Indianapolis is the most prosperous city of the whole West?

TABULAR STATEMENT OF COUNTY AND DISTRICT AGRICULTURAL SOCIETIES FOR 1874.

NAME OF SOCIETY.	PRESIDENT.	ADDRESS.	SECRETARY.	ADDRESS.	RECEIPTS.	DISBURSEMENTS.	Total number entries.
Boone County.....	John Higgins.....	Thorntown.....	M. Lane.....	Lebanon.....	\$1,473 00	\$1,473 00	1,140
Clarke County.....	John Beggs.....	Charleston.....	M. B. Cole.....	Charleston.....	1,028 70	800 00	275
Clay County.....	J. G. Acklemire.....	Brazil.....	J. B. Richardson.....	Brazil.....			
Cass County.....	H. M. Bliss.....	Royal Center.....	D. W. Tomlinson.....	Logansport.....	5,539 44	4,490 85	1,823
Clinton County.....	Enos Hoover.....	Frankfort.....	S. O. Bayless.....	Frankfort.....	4,450 00	3,980 00	1,580
Daviess County.....	Wm. Hyatt.....	Washington.....	J. M. Haynes.....	Washington.....			
Dubois County.....	A. J. Gossman.....	Jasper.....	A. Grammersbacher.....	Jasper.....	1,701 37	1,548 57	709
Elkhart County.....	Albert Osborn.....	Goshen.....	J. W. Irvin.....	Goshen.....	1,590 00	1,048 00	486
Fulton County.....	C. H. Robbins.....	Rochester.....	F. P. Ernsperger.....	Rochester.....	813 00	2,000 00	1,000
Franklin County.....	John S. Martin.....	Brookville.....	F. B. A. Jeter.....	Brookville.....	1,600 00	1,600 00	1,123
Fayette County.....	A. B. Claypool.....	Connersville.....	Chas E. Griffin.....	Connersville.....	2,269 25	2,700 48	1,006
Grant County.....	O. H. P. Carey.....	Marion.....	D. P. Gubberly.....	Marion.....	1,550 00	1,550 00	792
Greene County.....	F. Stalcup.....	Marco.....	Dave Osborn.....	Linton.....	851 00	848 47	365
Gibson County.....	Samuel Warnack.....	Princeton.....	J. C. Hastin.....	Princeton.....	2,991 67	2,748 17	1,029



Henry County .....	W. T. McLucas .....	Cedis .....	R. M. Nixon .....	Newcastle .....	2,855 56	2,630 88	1,125
Huntington County .....	Luther Cummings .....	Huntington .....	Robert Simonton .....	Huntington ..	2,331 06	3,228 98	
Howard County .....	O. S. Wilson .....	Middleton .....	T. A. Davis .....	Kokomo .....	3,081 73	3,075 75	757
Hamilton County .....	Edward Reeves .....	Cicero .....	D. O. Clifford .....	Cicero .....	1,250 56	1,240 06	600
Jay County .....	Jonas Votaw .....	Portland .....	R. Denny .....	Portland .....	1,708 64	2,409 82	567
Jennings County .....	J. V. Milhous .....	Batleville .....	George W. Swarthert ..	Vernon .....	415 15	415 15	294
Johnson County .....	C. B. Tarlton .....	Franklin .....	I. M. Thompson .....	Franklin .....	2,204 31	2,170 04	
Jasper County .....	Geo. H. Brown .....	Pleasant Grove .....	Joshua Healey .....	Rensselaer .....	1,334 85	647 00	311
Knox County .....	J. D. Williams .....	Wheatland .....	E. R. Steen .....	Wheatland ....	4,910 15	4,600 00	1,641
Lake County .....	P. A. Banks .....	Merrillville .....	H. Pettibone .....	Crown Point ..	967 20	630 00	377
La Porte County .....	John W. Zigler .....	Rolling Prairie .....	E. G. McCollum .....	La Porte .....			
La Grange County .....	C. B. Holmes .....	La Grange .....	W. T. Hiasong .....	La Grange .....	2,125 20	1,970 12	877
Lawrence County .....	Geo. G. Dunn .....	Bedford .....	Chas. T. Woolfolk .....	Bedford .....			
Morgan County .....	Willis Record .....	Martinsville .....	R. V. Marshall .....	Martinsville ..	2,103 95	2,103 93	630
Marion County .....	I. H. Furnas .....	Bridgeport .....	R. W. Furnas .....	Friends Wood ..	355 00	353 00	267
Madison County .....	H. J. Bronnenberg .....	Anderson .....	E. P. Schlater .....	Anderson .....	3,242 00	3,240 00	1,060
Noble County .....	John B. Stoll .....	Ligonier .....	D. W. Green .....	Ligonier .....	1,505 65	1,163 19	655
Orange County .....	T. N. Braxton .....	Paoli .....	A. Noblitt .....	Paoli .....	1,369 54	1,433 50	1,363
Posey County .....	Jas. A. Cooper .....	New Harmony .....	W. E. Thrall .....	New Harmony ..	3,658 05	3,307 10	1,243
Perry County .....	Jas. Hardin .....	Rome .....	H. C. Ackerman .....	Rome .....	845 00	800 00	500
Porter County .....	William Rigg .....	Valparaiso .....	J. W. Crumpecker .....	Valparaiso .....	1,639 61	1,639 60	
Parke County .....	Thomas Nelson .....	Bloomington .....	W. C. Woody .....	Bloomington ..			691

TABULAR STATEMENT OF COUNTY AND DISTRICT AGRICULTURAL SOCIETIES—Continued.

NAME OF SOCIETY.	PRESIDENT.	ADDRESS.	SECRETARY.	ADDRESS.	Receipts.	Disbursements.	Total number entries.
Putnam County.....	S. F. Lockridge .....	Greencastle .....	I. H. Crow.....	Greencastle.....	3,311 70	3,114 05	991
Randolph County.....	T. W. Kiser.....	Winchester.....	J. L. Stakebake.....	Winchester.....	1,888 45	1,651 40	536
Bush County.....	J. T. Hinchman.....	Rushville.....	L. Link.....	Rushville.....	5,244 13	5,144 10	1,101
Spencer County.....	George Thomas.....	Rockport.....	W. W. Wells.....	Rockport.....	.....	.....	915
Shelby County.....	H. B. Cole.....	Morristown.....	H. J. Gorges.....	Shelbyville.....	4,309 30	3,211 06	909
Tippecanoe County .....	H. T. Sample.....	La Fayette.....	Daniel Royce.....	La Fayette .....	11,034 35	11,034 35	1,524
Union County.....	Ell Piquan.....	Quakertown .....	T. F. Huddleston.....	Liberty.....	.....	.....	.....
Vermillion County.....	J. L. Thomas.....	Newport.....	J. H. Souders.....	Newport.....	1,595 00	1,560 00	400
Vigo County.....	O. Barbour.....	Terre Haute .....	Jos. Gilbert.....	Terre Haute.....	.....	.....	.....
Warrick County.....	S. T. Baker.....	Boonville.....	Geo. A. Wright.....	Boonville.....	3,204 99	2,892 60	931
Warren County.....	James Goodwine .....	West Lebanon .....	Geo. T. Bell.....	West Lebanon .....	2,734 30	1,420 00	806
Wayne County.....	Rankin Baldridge.....	Hagerstown.....	Wm. F. King.....	Centerville.....	458 00	640 00	471
Whitley County.....	John Q. Adams.....	Columbia City.....	Theodore Reed.....	Columbia City.....	.....	.....	.....
Wells County.....	O. B. Austin.....	Zanesville.....	N. Greenfield.....	Bluffton .....	1,134 60	1,100 00	476

Wabash County .....	William T. Ross.....	La Gro.....	C. W. Werner.....	Wabash.....	1,444 05	1,425 00	402
Henry, Madison and Delaware.....	Thomas Wilbott .....	Middletown.....	L. A. Pickering.....	Middletown.....			
Centre Farmers' Club .....	Francis Worley.....	Aurora .....	M. B. Kerr .....	Aurora.....			
Union City District.....	William K. Smith .....	Union City .....	L. D. Lambert.....	Union City.....			
Fountain and Warren .....	Joseph Poole.....	Attica .....	M. L. Wilson .....	Attica.....			
Northeastern Indiana .....	Jas. N. Chamberlain .....	Waterloo.....	John Butt .....	Waterloo.....	4,275 12	5,506 21	1,583
Fountain, Warren and Vermillion.....	George Nebaker.....	Covington.....	Isaac Haupt .....	Covington .....	1,895 40	1,808 20	601
Knightstown Union.....	G. S. Lowrey.....	Knightstown.....	Gordon Ballard .....	Knightstown.....	4,495 00	4,200 00	1,693
Southeastern Indiana.....	John Walker.....	Aurora.....	Harry Tusk.....	Aurora.....			
Cambridge City.....	J. L. Caldwell.....	Lewisville.....	Jerry McDaniel.....	Cambridge City.....			
Russelville Union.....	J. N. Fullenwider.....	Brown's Valley .....	G. S. Durham.....	Russelville.....	2,011 40	2,000 00	905
Bridgeton Union .....	R. Cox.....	Bridgeton .....	D. Seybold .....	Bridgeton.....	3,468 68	3,397 20	1,434
Switzerland and Ohio.....	J. W. Morrison .....	Sugar Branch.....	W. H. Madison.....	East Enterprise .....	2,831 57	2,600 57	835
Prairie Farmer .....	John G. Culp.....	Francesville.....	Lew W. Hubbell.....	Francesville .....	1,852 60	1,775 47	
Northern Indiana.....	F. P. Randall .....	Ft. Wayne.....	Wm. Lyne.....	Ft. Wayne .....	13,160 00	8,695 50	2,338
Gill Township.....	John W. Canary.....	New Lebanon.....	E. C. Dodds.....	New Lebanon.....	879 00		493
Richmond Industrial.....	J. M. Gaar .....	Richmond.....	C. S. Du Hadway.....	Richmond .....	3,188 80	2,902 19	

# SHORT-HORNS.

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## ANNUAL CONVENTION OF THE INDIANA ASSOCIATION OF SHORT-HORN BREEDERS.

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The Short-Horn Breeders Association met in the rooms of the State Board of Agriculture, November 11th, 1874. President Stevenson in the Chair.

On motion of S. F. Lockridge, of Putnam, a committee of three was appointed to arrange the order of business. Messrs. S. F. Lockridge, Charles Lowder and Thos. Wilhoit, were appointed.

On motion of Mr. Lockridge, a committee of three, consisting of Mr. Cravens, D. C. Hammond and Dr. Bice, was appointed, on the revision of the Constitution.

The convention then adjourned to 1:30 P. M.

### AFTERNOON SESSION.

At 2 o'clock P. M., the convention was called to order by the President. The committee on the order of business, reported, and the report was accepted and adopted.

The President, Dr. A. C. Stevenson, then delivered his address.

### PRESIDENT'S ADDRESS.

The first part of the address was entirely devoted to the cattle interests of the State in general. He said:

"Although Indiana has not as many cattle as some of the States, yet in quality we have as fine stock as can be found,

a fact demonstrated frequently where they have been brought into competition with the very best show-herds from adjoining States. We have every requisite for the production of good stock. The soil is admirably adapted to the growth of the cereals and grasses so essential to the production of stock of superior quality. But with very great natural advantages of food, water, and health, we are producing far less than we should. In 1870, we had only 618,360 beeves and store cattle; 393,736 cows and 14,048 working oxen. The number might be increased with great profit to the State. Beef is increasing as an article of food; it is more generally relished, and is the most healthful of all meats. As an illustration of the quantity used, we will give the estimated value of that used in the city of New York in the year 1872: Beeves, \$31,800,806; cows, \$454,250; calves, \$1,150,300; total, \$33,205,356. Add to this the amount consumed in all our towns and villages, we may realize that the total amount is very great. In the United States in 1870 the number of beeves and store cattle was 13,566,005; milch cows, 8,935,332; working oxen, 1,319,271. On the authority of the report of the Secretary of the State Board of Agriculture, we learn that there is a decrease of two per cent. in the production of calves in Indiana. The average increase in all the States has been but one per cent. during the past year, or at a rate considerably below the relative increase in population in the same time.

The sales of Short-horns for the past two years have greatly exceeded the expectations of the most sanguine. It was thought by many breeders that too many were being forced on the market, and that a decline in prices would be the result; but their predictions have proven untrue, and prices have advanced instead. The legitimate conclusion is, that the supply is still greatly below the demand. The prospects, therefore, for another year of good sales are all that short-horn breeders could desire.

One of the most important movements of the times is the association of the various interests of the country in separate organizations for self-improvement and self-protection.

Association and consequent investigation enable those engaged, to better understand their callings or professions, to better appreciate their wants and to defend their rights. The breeders may expect like benefits from association. It will be a saving of time and money to all who intend becoming breeders to attend both the American and State Associations of Short-horn Breeders. He will not only become acquainted with the men who breed them, but he will learn more of the history and pedigree of Short-horns than he would otherwise acquire for years.

The committee on revising the Constitution, reported and recommended that Article III be so changed as to read two dollars, instead of one, for membership fee.

Mr. S. F. Lockridge moved that the report be so amended, as to fix the annual meeting the first Tuesday in November.

Charles Lowder thought the time fixed by the Constitution, the best; and Indianapolis, the best possible shipping point in the country, and he proposed an annual Stock-Sale at Indianapolis; that it would be a matter of the greatest possible interest to breeders, and that if the same is held in connection with this Convention, it would be of the highest importance to farmers and breeders, and he believed the fourth week in May, the best time. The amendment was withdrawn, and the report concurred in.

Mr. Cravens addressed the meeting and at the conclusion of the address the following discussion ensued:

Mr. Craven—(in reference to the question where he must draw the line between what should be admitted and what excluded in the grade Herd Book) remarked, that he should discriminate, if he discriminated at all, in favor of the man who had been breeding for years to animals which he believed to be thoroughbred. There were thousands of people who owned cattle which they believed to be thoroughbred—and whose animals to all appearances were of pure blood—who could not give a pedigree to anything. He would certainly discriminate so far in favor of such herds as to admit them to the new registry with a less number of crosses of recorded bulls,

than other herds concerning which such presumption did not exist. He would have nothing of less than three-quarter blood—that is, animals with less than two direct crosses of recorded bulls—and would reject everything save the get of bulls recorded in the regular herd books as thoroughbred, and would admit no grade males. What he desired was to offer the general farmers of the country some encouragement for breeding up their stock by the continued use of thoroughbred bulls, by giving them successive and unbroken crosses of bulls of pure blood. Breeding was a matter to which, (in this era of sales, when a man with money can obtain a herd of cattle,) far less attention was being paid than was desirable. He thought the breeders of Indiana would reflect greater credit upon themselves by breeding their show animals than by going to other States to buy them.

Mr. Thrasher.—The parties interested in this proposition are not confined to this association. Grade cattle are scattered all over the country in greater or less numbers. They are produced in all the States, and many States are more conspicuous for their production than the State of Indiana. It was not his intention, however, to discuss the merits of this proposition—if gentlemen interested in grade cattle wished a herd book, it was clearly their right, in this free country, to get one up. He believed, however, that the project, independent of its merits, and independent of all considerations as to whether it would do any good, was not feasible, and he preferred to spend the time in the discussion of some *practical* question. The present fancy prices paid for cattle is a humbug. They take cattle out of the reach of the great mass of farmers, and so far as they are kept out of their reach, the interests of the State and the people are damaged. These extravagant prices discourage general farmers and new breeders from engaging in the propagation and dissemination of these cattle, who would not be discouraged by anything else, and their influence is to restrict the ownership of these animals to the hands of a few, while the real interests of the country demand that the advantage of their blood

should be participated in by all. But notwithstanding the enormous prices paid at the sales for particular animals, he did not believe there was any necessity for falling back upon the grades or instituting a grade herd book. There is certainly no difficulty now in the general farmer procuring thoroughbred bulls. Take the average of the present sale season, and he believed it would be seen that the bulls had not averaged much, if anything, over one hundred dollars. At much higher prices than these every farmer can afford to buy a thoroughbred bull, to be used simply to the common cows of the country. The advantage accruing from the use of thoroughbred bulls upon the common stock of the country has been often demonstrated. We can not afford to raise scrubs.

At the present value of land, we must have a class of stock which will mature earlier and give larger returns for its keep. This we can secure by the use of thorough bred bulls. Of course no one expected that cattle could be bought at fancy prices and multiplied until the country was filled with them—he did not believe that any one obtaining money by work could afford to pay the fancy prices oftentimes paid. If the gentlemen sustaining these prices wanted a ring, let them have it, and, perhaps, after awhile, the institution of a grade herd book would become a necessity. At the present time, however, he should not encourage the use of any thing but thoroughbred bulls. Bulls are very cheap. Every one can sell heifers at double the prices that bulls command. And this he believed was a healthy indication. In old times it was the idea that all that was required to secure desired improvements in the stock, was to have a good bull in the neighborhood. But now the people are becoming better educated, and are beginning to understand that proper attention must be paid to the dam also—that a good female as well as a good bull is necessary.

He believed one great cause of new beginners being discouraged was, that they commenced the business with altogether too great anticipations of what they were going to accomplish. They have an idea that they are going to make



an improvement in the type of their animals. We older breeders should teach them better. The common stock, and for that matter, any inferior race of stock, can be improved greatly by crossing it with a superior race; but he was talking about the power of breeders, to still further improve the superior race. He did not believe it could be done. Given already a good type of an animal, and the full ability of the breeder would be exercised in maintaining that type, without giving any thought of improving upon it. There is a limit beyond which we can not hope to carry the improvement of our animals, and so far as Short-horns are concerned he believed it had been already reached. He believed it had been reached these forty or fifty years. There are, of course, more good animals now than then, but the type, he believed, had not been improved in any particular.

He wished some measures could be devised to encourage the general farmers of the country to employ this higher type in the improvement of the native cattle—he wished to see them manifest some interest in stock improvement. They can not afford to produce scrubs. Put a grade or a thoroughbred in the same place, on the same feed and care, and the animal of good blood will double the other right along. If the general farmers could be made to see this, they would discard the poor blood and take the better, and Indiana to-day, would not be behind all the surrounding States.

[In reply to a question] he did not run a dairy, and professed but little experience in dairy management. Has milch cows, however, and from his knowledge of the milking capacity of Short-horns, he did not believe there is any other race of cattle which can equal them for general dairy purposes. It was a popular idea that the Short-horns were not good for the dairy, but it was all a mistake. He believed this idea originated in the fact that the old Long-horn breed imported into this country in the early times were poor milkers, and having found them so, people fancied they had given the Durham a trial, and a sort of tradition was established and handed down from one generation to another that

the Short-horns were not good milkers, but those who had bred the real Durhams knew better.

Dr. A. C. Stevenson—Let me relate a little bit of experience. I have related similar things before, but a fresh testimony showing the comparative feeding capacity of scrubs and natives will do no harm. Three years ago I purchased some eighty odd spring calves from the people in the county where I live. They were spring calves, and I purchased them in the fall. They were a nondescript lot—some grades, some natives—in fact, a mixture of pretty much everything in the cattle line existing in that region. I had some refuse thoroughbred calves of the same spring, which I had made steers of, and I turned these eighty odd calves and these refuse thoroughbred calves into the same enclosure. They ran together all the time, and had in every respect the same treatment and keep. This fall I turned out fifty-one from the lot, and sold them to Mr. Bryant, who is now in the room. Of this number, forty-nine were of the calves I had purchased, and two were thoroughbreds—all three years old past now. The average weight of the fifty-one was 1,370 pounds. We did not weigh each animal separately, but after the aggregate weights of the whole lot had been ascertained we picked out these two thoroughbred calves and weighed them. One of them weighed 1,600 pounds, and the other 1,570 pounds—an average of 1,585 pounds. We then picked out one of the scrubs, or native steers, fairly representing the best of that blood in the lot, and he weighed 1,150 pounds. From 1,150 the grades weighed up, so as to bring the average weight up to 1,370, as stated. Here, then, is the difference between refuse thoroughbreds and the native stock—choice specimens of the thoroughbreds would have shown even a greater difference—upon common keep shared by both alike, and under precisely the same conditions and circumstances. The thoroughbreds made 1,585 pounds, where the natives made 1,150 pounds—a difference of 435 pounds. It was useless to enlarge upon a lesson so plain.

[Mr. Bryant subsequently remarked, that at  $4\frac{1}{2}$  cents per pound, the prevailing average price at the time he purchased the cattle, the thoroughbred steers were worth \$71.32 each, and the scrubs \$51.75—a difference of \$20 in favor of the thoroughbreds. Furthermore, that if the whole lot had been thoroughbreds they would have commanded \$1 to \$1.50 more per hundred than the natives, which would have made the thoroughbreds worth from \$35 to \$43 more than the natives of the same age which had been provided with the same keep.]

Mr. Claude Matthews believed that if the use of thoroughbred bulls were general among the farmers of Indiana, a very few years would witness such an improvement in the horned stock of the State, that it would be worth 25 to 30 per cent. more than at present. But he believed that in order to make this progress thoroughbred bulls only should be used, and he feared the institution of a grade herd book would encourage the use of grade bulls, which could not be depended upon. ["How so?"] Because no one can tell how a grade will breed. He may be a fine animal to look at, but is just as apt to breed back to his dam as his sire, and especially when bred to native cows, where the current of improved blood will be too weak to greatly control the tendency of the other.

Mr. Thrasher—That is so. Take a mongrel or mixed-bred bull and you can place no dependence upon him. He will likely breed any way except the way you want him to breed. And even if he should breed as good as himself, it is better to use a thoroughbred and get something better.

Mr. Lowder remarked that it was altogether too common a thing to say the feed did it—that the corn crib cross was what was desired. Of course no animal can be developed or ripened for the butcher—or made to show what there is in him—without feed. But the feed was not everything. The farmer wants a good animal to start with, then he can feed him to some purpose and profit. If he has not a good animal to start with, a good deal of the feed will be wasted, and perhaps the production of a first-class animal will be

impossible, no matter what the quality and quantity of the food.

Mr. Bice—It should not be lost sight of, in this discussion, that in breeding to a bull we are not only breeding to the immediate but to the remote ancestors. If the remote ancestors, and especially those within a few removes, are not suited to our purpose, the animal will be unsafe for breeding purposes, and so far from aiding the farmer who has already made improvement, to a still greater improvement, may carry him back or down the hill. For this reason the use of thoroughbred bulls only, should be encouraged. The conformation should be considered in breeding, because it has everything to do with the laying on of flesh. The greyhound can scarcely be made fat, no matter how he may be fed, because his form is not suited to it; and the thoroughbred horse, which approaches nearest the greyhound in conformation, will not lay on flesh so readily as the broad-backed draft horse. Animals sharp in the back, with narrow loins, lay on flesh and respond to the food very indifferently, to say the least. There is a difference in the capacity of different races and among certain animals to assimilate food. He knew an Alderney and a Short-horn fed in the same stable, the Alderney consumed more than the Short-horn, and did not perceptibly improve in condition, while the Short-horn gained in flesh, and gave at the same time, the most milk. As a rule, animals with a form suitable for the laying on flesh have good powers of assimilation—the disposition to make flesh and the place to put it appeared to go together.

Mr. Thrasher—The bane of the western farmer is his passion for land. He is not content with a farm suitable to his capital and his ability to manage, but he wants to buy all the land adjoining, and the more he buys the more he finds to buy. They undertake too much, and do nothing right. He believed 160 or 200 acres as much as any one can handle with profit, and the surplus money can be far more profitably expended by the farmer in the improvement of his stock, and in other ways to render the farm he already

has more productive, than in the purchase of more land. These large farms require the employment of extra help, which turns the farmer's home into a sort of boarding house, works down and undermines the health of the family, and oppresses him with cares which are altogether unnecessary. Smaller farms and better stock will yield more money, and give the farmer more leisure for his improvement, and more opportunity to enjoy life.

A paper on the "Galloway Cross, and the prices obtained by Animals of Alloy and Pure Blood at Charles Colling's Sale, in 1810," submitted by A. S. Matthews, of Virginia, was then read.

The Association then proceeded to the election of officers for the ensuing year, with the following result :

President—Dr. A. C. Stevenson.

Vice-Presidents—Chas. Lowder and W. W. Thrasher.

Secretary—Claude Matthews.

Treasurer—S. F. Lockridge.

Executive Committee—W. C. Bice, W. W. Thrasher, and H. Craven.

After the disposition of some matters relating to the business of the Association, it adjourned until evening.

#### EVENING SESSION.

Upon the re-assembling of the convention in the evening, Mr. Thrasher offered a resolution in favor of annual sales to be held on the days succeeding the conventions, and under the auspices of the association. After a general discussion, the resolution failed to pass. It appeared to be the general sense of the members that public sales of stock could be held at the time indicated with manifest advantage, but that it would be better to leave their arrangement to such persons as desired to sell.

Mr. Craven offered a series of resolutions providing for the appointment of a committee for the publication of a herd book of grade cattle; defining the rule for the admission of animals to be, that the record should embrace females only, that none should be admitted with less than two crosses

of thoroughbred bulls recorded in the regular thoroughbred herd books, and that no animal not the get of a recorded thoroughbred bull should be admitted; defining the mode for authenticating pedigrees; and recommending that animals with crosses should be considered as thoroughbred, and admitted to record as such in the regular herd books.

Mr. S. F. Lockridge thought that the subject of a grade herd book was not within the province of the Association. He had nothing to say against grade cattle—he was not breeding them—and believing that he was not concerned in the matter would not vote for the resolutions. If the gentlemen breeding grades feel that they want or need a herd book, let them come together and arrange for its publication and consider the rules under which it should be conducted. It would be entirely proper for them to do so, but improper for this Association to undertake the work.

Mr. J. H. Farrell believed the institution of such a herd book would be destructive to the interests of breeders. It is proposed to establish a record of grades, and after this record shall have established for them a few crosses it is proposed that they shall be eligible for entry into the regular herd books as thoroughbreds—the proposed grade record, therefore, is to be merely a stepping-stone by which all the scrub stock of the country is to be let into the herd books.

Mr. Lowder did not believe the Association should assume the responsibility of the publication of the proposed book. It would cost a great deal of money, and he doubted whether it would be largely patronized. Many people have purchased thoroughbred cattle, and by not placing them or their produce upon the record have allowed their pedigrees to be lost or involved in doubt. Many people are careless about pedigrees, and he believed those who failed to appreciate the importance of pedigree and the necessity of making a public record would be found to be the very persons who are engaged in breeding grades. Besides, it would seem that, as an Association of Short-horn breeders, we should not undertake the superintendence of a record for grade cattle—it would seem something of a let-down in dignity.

Mr. Craven contended that the Association was not confined to Short-horn breeders—that is, to the breeders of *pure* Short-horns. It is an association of those interested in the improvement of *cattle*. Pedigrees are cheaper than cattle, in one sense and they are entirely independent of each other, although many people often confound the two, and are unable to conceive of cattle disassociated from a pedigree. The effect of a grade herd book would be to bring all classes of cattle to their proper standard, and provide a place for good cattle which now have no right to entry in the regular herd books. Under the rules adopted by the National Convention cattle may be crossed with thoroughbred bulls in this country for thousands of years and yet their produce can never be honestly admitted to the herd books, because not tracing to imported animals or to those already upon the record. It makes no difference how slight the proportion of common blood may be, or how long the breeders have aimed at eradicating it, or what class or number of bulls have been used, the cattle can never come to be considered as thoroughbred. Such a rule is certainly without any reason or justice.

Mr. Lockridge claimed that as breeders of Short-horn cattle, the members of the Association had no right to dictate in this or any other matter to gentlemen engaged in the breeding of another and different kind of cattle. As well might the gentleman seek the passage of a resolution concerning Jerseys or Ayrshires, or any other kind of cattle in which the members of the Association had no considerable interest. As to the other proposition, it might be that the rules of the National Association as to what should entitle an animal to record were wrong. But this was not the place to discuss that question, there will be a meeting of the National Association next month, and whoever has an impression that the rules can be improved should submit their propositions to the Springfield convention, next month.

Mr. Matthews thought the breeders of Short-horn cattle

were not entirely destitute of interest in the question. They had an interest in seeing the country filled up with good grade cattle, which would add largely to their value, and the wealth of the whole agricultural population. But this interest was not restricted to Indiana, other States were interested equally in it, and many of them to a greater extent than Indiana, and he believed the subject should be submitted to and considered by the National Association. He did not think it was proper for the breeders of Indiana to assume any position in regard to it. Again, when a national association prescribes a certain standard as necessary to entitle an animal to the record, it would be presumption for any State association to prescribe a different and lower standard; and especially the breeders of a State where the Short-horn interest is so confessedly small.

Mr. Craven did not believe it would be impertinent. The Indiana breeders issued the call under which the National Association was organized, and such propositions as we submit will be considered upon their merits solely. The resolution only contemplated the appointment of a committee to take charge of the matter, and it did not commit the Association to the expenditure of a dollar. He believed the true interests of professional breeders—the breeders of thoroughbred cattle—required some such record, conducted under some such regulations as he had proposed. These rules require the successive use of thoroughbred bulls, which these professional breeders will be called upon to supply. It will offer some encouragement to general farmers to undertake the improvement of their cattle, because it will be a public admission that improvement by him is *possible*. And when a man has, by the use of one bull, provided himself with a stock of half-blood females, such a registry will be an additional inducement to provide a thoroughbred bull for the second cross, and also for the third cross, and so on all the time; whereas we all know that the existing inducements—that is, the increased value of the animal for grazing purposes which the farmer thinks he



will obtain—is not sufficient to keep up the use of bulls of pure blood even when he has commenced, and he wanders off to grade bulls and bulls of other breeds—the very thing gentlemen are declaring against. If such a record had been established in this country years ago, the gentleman would not be able to state on this floor that the average prices made by the bulls offered at the public sales of this year was not over \$100. It is the absence of the very condition of affairs which a record of grades would create, that is the trouble with the interest in which they are concerned. But if it be said that this grade record will build up herds to compete with existing herds, then will I say that this is just what this Association is for. We want to build up herds; thoroughbreds if we can, and after them good herds of grades as the next best thing. Narrow views always prejudice the interests of those who hold them. The narrow views which have been advanced by many gentlemen connected with the breeding interest have prejudiced it greatly in the past, and will ultimately break it down if gentlemen do not grow more liberal. If it comes to be understood that a few men owning a few cattle of fine pedigrees are determined to make the whole country bend to their interests, as measured by their pedigrees, they will find the people will leave the pedigrees in their hands, and go on in the improvement of cattle without any reference to them.

Mr. Thrasher felt that the gentlemen misunderstood each other. The resolutions had not been opposed on their merits, but simply upon the ground that they embraced subjects which it would be improper for the Association of Indiana breeders to consider. He believed that a grade herd book might be of great benefit to the country. This was his individual opinion, but as a member of this Association he should oppose it for the reason that we occupy the position before the country of an association of the breeders of *thoroughbred* cattle, and he did not believe the Association could afford to forfeit this position. Personally, he favored the idea of a grade herd book, and the

more he thought of it the better he liked it, because, if people can not be worked into the breeding of thoroughbreds, he was in favor of bringing them just as near that point as he could. It would be a benefit to the country.

Mr. Matthews would not deny the good which a grade herd book would do. But he persisted it was outside the province of this convention. If the gentlemen desired to submit it here, let him bring it in the shape of a resolution recommending the matter for the consideration of the National Convention. If such a book is to be published, the people of other states are interested, and the National Association, and not the association of a single State, should assume the responsibility of it.

Mr. Craven.—If the Association of Breeders of Indiana can not consider the matter because it is composed of the breeders of thoroughbred cattle, by what means can the National Association consider it? But we have no charter from the National Association, we receive no powers from it, and exercise no privileges at its pleasure. But, entirely free and independent of it in every respect, we have a perfect right to express our opinion upon any subject we please. And after all, the resolutions are simply the expression of our opinion. We do not own or control the herd books, and if we pass the resolution concerning them it will simply amount to a recommendation that after so many crosses of previously recorded bulls, an animal should be considered thoroughbred and entitled to the privileges of the record. The publishers of the herd books would do as they pleased afterwards. They did as they pleased after the National Association made its recommendations. But the action will be the expression of our opinion that when an animal has seven crosses, or seven hundred crosses, of thoroughbred bulls, gentlemen may place the limit where they please, only place it *somewhere*. The common blood is drowned out, and the animal is entitled to be considered as thoroughbred. It seems perfectly competent for the breeders of Indiana, or for any private individual, to express his opinion publicly upon such a subject.

Mr. Meredith thought the place for all questions to have their start was with the people, and any association, no matter how humble its pretensions or how limited its sphere, had a right to express its opinion upon any question which it was conceived affected the interests of its members. He did not consider the question—or either of them, for there appeared to be two involved—as outside the purview of the Association. If the members of the Association had any opinions upon these subjects it was entirely competent for the Association to give this opinion such expression as would make it understood. He would not say that he was in favor of a grade herd book—there were reasons, and weighty ones, which could be adduced both for and against it. In reference to the other proposition, however, he would not hesitate to declare, here and anywhere, the conviction that the principle was right. It was possible to breed out and overcome the influence of the native blood, and when bred out the animal was to all intents and purposes a thoroughbred, and should be so recognized. The resolution does not say how many crosses should be required to place an animal on the same plane with thoroughbreds. He believed it was the combined opinion of intelligent and observant breeders that seven crosses are sufficient, and he would move to fill the blank in the resolution with seven. He was in favor of the passing of such a resolution, and then let the National Association consider it. If that Association thought best to place the standard higher, let it do so. He regarded seven crosses as high enough, but if this did not meet the approval of the National Convention he trusted the line would be drawn *somewhere*. There are many pedigrees recorded both in the English and American Herd Books which do not come up, even to this standard. Cattle are sold on their pedigree and on their form, and people always would discriminate against those pedigrees which they regarded as of the least value. That the discrimination against animals admitted under a seven-cross rule might be so general as to always keep them at a low value was no argu-

ment against the justice of the rule. There was need of a cheaper class of cattle—they are what has been termed “the pioneers of Short-horn civilization.” People, as a rule, would not commence with high-priced cattle. They would purchase cheaper animals of plain pedigrees first, and when they come to get acquainted with the cattle, to understand how to handle them and the elements which enter into the commercial value of animals of different pedigrees, they would begin to feel a desire for something better and be among the customers for higher priced animals.

He always favored this sort of commencement for a young breeder, for there is much to learn in the handling of Short-horns, and the necessary experience could be acquired with a cheaper class of cattle as well as with the best. If high-priced cattle were purchased the new beginner would be apt to be discouraged when he failed to find a market for his young bulls, and was compelled to make steers of them. And every new beginner should bear in mind that until he is somewhat known as a breeder, he is likely to find some difficulty in effecting sales. If the commencement is made on *cheap* cattle, the young breeder finds the steers are worth to him all they have cost him, and more too, and he is not discouraged because sales are slow. Cheap cattle, too, are necessary to supply a certain class of customers who do not conceive themselves able to pay high prices, and they are found in almost every herd in the country. He would say, in favor of the grade herd book, that if animals are to be admitted when they can show seven crosses, the existence of a record showing just when and by whom and where these crosses were made, would be far more satisfactory than the present plan of submitting hearsay and circumstantial evidence to back up a pedigree sent for registry. There are now pedigrees appearing in the herd books which no one ever saw before, and no one knew how they got in unless they “jumped in.” They were probably admitted on some one’s recommendation, or some one’s certificate of what some one else had told him. This was very unsatisfactory, though, perhaps, the best which the publishers of the herd

books could obtain. A grade herd book, and the regular graduation of animals from that to the thoroughbred book, would certainly supply evidence upon which greater reliance could be placed.

The motion to insert seven crosses in the blank was submitted, and lost by the casting vote of the chairman, one of the vice-presidents.

After some further discussion the resolutions referring to the grade herd book were amended, at the instance of their mover, by striking out the provision for a committee, and inserting such words as simply expressed the sense of the Association that such a book should be published. In this shape the resolutions were adopted.

The Chair ruled that the vote adopting the resolutions did not reach the resolution concerning the requirement of a number of crosses to entitle an animal to registry as a thoroughbred, and that resolution was accordingly acted upon separately. The blank was filled with seven, and in this shape the question was taken, and resulted in a tie vote.

Mr. Lowder, who occupied the chair, remarked in giving the casting vote, that he believed the principle involved in the resolution was correct. Some specified number of crosses should be required, and he regarded seven crosses as sufficient. Nevertheless, the attendance had been small during the evening, as shown by the fact that but ten gentlemen had voted, and he considered it would be impolitic for so small a number to take action upon a subject of such importance. For this reason he gave the casting vote in the negative, and the resolution was declared lost.

At the conclusion of the discussion the convention listened to a paper by Dr. A. C. Stevenson on

#### “THE SCIENCE OF BREEDING.”

Before presenting some thoughts upon breeding as a science, and the production of varieties of animals, let us notice a striking fact not altogether disconnected with the

subject, one familiar to all, and so far as we remember, unaccounted for.

It is, that few if any varieties of domestic animals have been produced in this country. Short-horns, Devons, Herefords, and a number of other varieties of horned cattle have been produced by English farmers. The thorough-bred horse is of English origin.

The same is true of some of the most valuable breeds of sheep, as the Bakewell, the Cotswold, the Southdown, etc., and the same may be repeated of our most valuable breeds of swine. The Berkshire, the Suffolk and many other valuable varieties are the products of English breeding. The extraordinary draft horses that are attracting so much attention at this time are of French, Scotch and English breeding. Spain is entitled to the credit of producing our fine woolled sheep. We have in this country a number of the very best varieties of all the domestic animals, and not one of any note that can claim an origin in this country.

This is to be accounted for not by any want of intelligence on the part of our farmers and breeders of domestic animals, nor to the want of enterprise, but to a difference in their prospects of bettering their condition and the mode of accomplishing this. Here the great object of every farmer is to own a farm, or if he has one to enlarge it. Every farmer's son is intent only to own a farm, and every worthy farm laborer hordes carefully his wages for the same purposes. Not so with the English farmer; he has no prospects of owning the farm he so finely cultivates. His condition is not to be thus bettered; but he looks to other ways of improving his condition. He has so much annually to pay as rent. This must come from the annual yield. All above this is his; hence, it becomes a pressing necessity to make the greatest possible yield. As a consequence he is found manuring each acre—he studies to make the greatest yield, and thus English agriculture has become greatly improved.

There is the same inducements to improve all the domestic animals of the farm. These improvements are not the things of a day or a year, but they have been going on so long as these causes have operated and will not cease so long as they continue.

To give a clear view of the power of these influences that have produced such marked results in the domestic animals of England, we have only to suppose that these improvements may be made to add a fourth to the quantity of the crops and a fourth to the size of domestic animals, and his rents are virtually reduced and his condition thus bettered. Thus stimulated for a long period, we have a greatly improved agriculture, as well as highly improved domestic animals, and of every variety kept upon the farm. It is this, the prospect of possessing a farm that has made us not the originators of fine breeds of cattle, but the mere propagators of what has been produced by others. Mere copyists, contesting hotly for the purity of English blood. I am not disposed to censure or find fault with ourselves, but merely to account for the facts that are known to exist and profit by them.

The numerous breeds of highly improved domestic animals that we have named, is sufficient evidence that there is a system or a science by which it has been accomplished.

Notwithstanding these principles or rules have not been written and regularly classified, they are none the less a science, and were, perhaps, well understood by Bakewell, Colling, Bates and the Booths, and many of the other English farmers of less note, full as well.

I trust the intelligent breeders of this Association will make due allowance for the attempt that I now propose making, to classify those influences that operate in the production of our improved domestic animals from conception to maturity.

1. Condition. 2. Parentage. 3. Constitution.

Under the first, head of condition, may be named food,

both summer pasturage and winter food, climate, both heat, cold, water, soil, etc.

Under the second, parentage, we would class the proper matching of parents and selections.

Under the third, construction, we would class the knowledge of what is wanted and the ability to work it out. Just as the painter constructs his picture in his mind first, and then transfers it to canvass. Or as the sculptor who first creates some mental beauty and then transfers it to marble, by patiently removing chip after chip, and, although it may take long years, yet at last we have the mental creation transferred to stone.

Having presented these principles and arranged them so that we trust they may be understood, we now propose to illustrate them more fully in what may be called the art of breeding. Although the art of breeding or the science of breeding is applicable alike to all the varieties of domestic animals, yet it may be more appropriate for us to confine ourselves to horned cattle alone, and by so doing we will be likely to be better understood.

If we could present you here fair specimens of the cattle of some parts of the country, where the spirit of improvement has not yet reached, they would be found small, slab-sided, bandy-legged, unsightly cattle. These are what are known as scrubs or native cattle, or "small mean" cattle.

Their breeding is instructive. The calves are penned in some grassless lot, or tied in the fence corner in a half starving state to make the cows come home, when they receive just so much, such as will make the cow give her milk down. Its winter food is just what will keep it alive. Corn shuck, a little fodder, or probably a sheaf of oats thrown into the corner of the fence which it has sought as a kind of a wind-break, and where it makes its bed at night in the snow and upon the frozen ground without shelter. In the spring it is a poor, stunted calf. Nature, ever kind, has contracted its body into as small a compass as possible to suit it to its small allowance of food. It has contracted its



ribs until the opposite sides nearly touch to suit them to the poorly fitted stomach. Its legs have been bent inward to keep each other warm until they are justly entitled "bandy-legged." This calf is now turned to the woods to make a living on brush, leaves, and perhaps a scanty bite of grass along the lanes and fence corners. It winters and summers until its maturity are but a repetition of the same course of treatment. The effects of such a course of breeding are very marked indeed. There is great uniformity in all the cattle of large districts, so much so that they are known wheresoever they present themselves as the scrubs from, or "Texas cattle." They are narrow in shoulders, slab-sided, narrow in the loins, droop-rumped, long tails and limbs suited for brisk locomotion, so that great distance may be traversed to gain a scanty subsistence. I have presented you with this, not a very agreeable picture, but still a true one of what may be found in some parts of almost every State, for the purpose as before intimated, of better illustrating the science and art of breeding. The breeder would very naturally desire first to increase the size of this scrub breed. How is this to be done? By changing its condition, by furnishing good pasture and water for summer, and plenty of nutritious food for winter. The inclemency of the winters are easily obviated by good warm barns, and for beds of snow and ice, beds of straw can be very profitably substituted. This treatment of the calf to maturity is sure to increase the size, just how the abundance of food lengthens the bony structure, enlarges the muscles would be unnecessary to explain.

The scarcity of food as certainly diminishes size as a bountiful supply increases it. Indian horses all soon become ponies from scarcity of food. Food, too, is known to have a great influence upon the symmetry of animals. We have now only provided for size. How are we to remedy the slab-sides, the narrow loins and the crooked, unseemly legs. By carefully selecting and matching the parents. By breeding together animals of different qualities of form, you often have an offspring partaking of the qualities or forms of

both parents, and yet resembling neither exactly. A very striking illustration of this may often be seen in the dog, when a fiste slut has been bred to a large dog, the offspring will have the body of a large dog upon the legs of the fiste; this deformity is easily perpetuated.

A white bull bred to red cows is apt to bring roan calves, a mixture of the colors of the parents. Thus, by matching properly, desired results are obtained. Although the produce of the parents are generally like the parents, they are rarely exactly so. This is known to every breeder. A lot of calves from a cow and bull are never equal, sometimes indeed they are very unequal. But there is at least room for choice, and good or bad selections may be made from every family.

Our third division, "constitution," is at least, not of less interest than either of the other divisions that we have had under consideration, and we may be pardoned for devoting a little more space to its consideration. The breeder is given extraordinary power over the animals of the farm, little less than what the potter has over the clay. "He maketh one vessel to honor and another to dishonor." But he accomplishes nothing without design. The picture must first be well impressed, then he plies his art; he carefully selects, matches parents, feeds, protects. He repeats again and again, until he reaches the end desired. It is thus that the numerous breeds and the fine quality of our domestic animals have been produced, not in some secret that died with Bakewell and Colling as some have supposed. It is an art extensively known and practiced by English breeders, as is evidenced by the improvements made in different breeds of cattle in almost every part of England. The same art has been applied to different breeds of sheep. To several breeds of swine. The horse has shared largely from the benefits of this art. Birds are also subject to and governed by the same principles—they control also in vegetable life; every cultivator of the soil knows that he can greatly add to the size and quality of his vegetables and cereals by giving plenty of rich food. The hay crops may be doubled by

manure. The benefits of winter protection is also appreciated and the roots of plants are matched. Selection is also as highly valuable as in animal life. The matching of parents as in hybridizing, has also produced the happiest effects. It is thus seen that the science of breeding is applicable to both animal and vegetable life. But as our object upon this occasion is more specially to apply the art of breeding to rearing Short-horn cattle, we will endeavor to give a few suggestions for the benefit of young breeders and farmers generally, and I trust that our experienced breeders will bear with me if we are in any way successful in benefiting our younger brethren of the farm.

It is probable that all will agree with us in what we have said in relation to condition, food and winter protection, and their influence on size and symmetry.

To our second head "parentage" which embraces properly matching parents and selection, we would add, that in matching the parents, one herd has become coarse or heavy boned. We should select a bull light boned, fine in form as a breeding bull, and at once correct the fault that has crept into the herd. If any imperfection is found to exist, as an irregular line of the back, belly or sides—if the back or loins, ribs or crops should be defective, select a bull as a breeder perfect in any or all of these points. Any other defects should be treated in the same manner. Animals of both sexes that are unhealthy should be avoided in making your selections for breeding animals. In selecting a bull for the herd, as a breeder, if possible, procure one that has proven himself a good calf-getter. It should be better to take an old one that has proven himself than one untried. The mischief done by one bad breeder is not easily got rid of, and amounts to a very great loss, and it is profitable to know that every fine bull is not a free breeder, notwithstanding the general rule that "like begets like."

Under the third head of construction, it must be remembered that the object to be accomplished must be fully impressed on the mind. The picture is to be copied by the breeder. Now it will be readily seen that a correct copy

should be produced on the mind of the breeder. This can be done by a clear view of the object sought. What is the object sought? What is the object of cattle breeding? Beef and milk—of good quality and sufficient quantity. The dairyman may be profitably consulted as to the points of a good milker. For beef we must always learn of the butcher, he being daily instructed by the tastes of his customers, and the prices attainable for certain cuts is the best possible judge of what a bullock should be. He will be sure to inform you that a bullock with heavy bone is objectionable for the reason that his customers do not like to purchase bone. You will also learn that the cuts from certain parts are worth much more than those from others, and that he consequently wants a bullock that will yield largely of these most valuable cuts; you will learn that steak, sirloin and good roasting pieces are generally esteemed, hence he wants a good broad, lengthy thigh, a broad loin, a broad back and a fleshy rib. It is thus that correct knowledge is obtained, and a true picture is impressed upon the mind to be reproduced in the living animal. But the breeder needs more than can thus be obtained.

The butcher only cares that the bullock suits him. That he is fat, of good quality, and cuts largely in his valuable points and is light in offal. He knows nothing and cares nothing about the cost of producing such an animal, but to the breeder this is very essential. It is his interest to have early maturity, one that fattens easily as well as one to suit the butcher. Directions on these points that will be intelligible and easily understood, are very difficult and will mainly have to be learned by experience. Only a few general rules can be given. The qualities indicating early maturity and the capacity to take on fat, will be found pretty much the same, some of which may be here enumerated. A gentle or quiet disposition, a round neck, not flat and broad, not stuck into the shoulders, but placed upon it as though it had been welded on, roomy about the heart, a swelling full rib and a pretty good sized abdomen, mellow to the touch, soft, thick, oily hair, and manifesting anxiety

for food, with a good appetite and not choice as to kinds. These, at least, may be numbered as some of the qualities that will be indicative of early maturity and a kindly disposition to fatten. Yet the eye of experience is indispensable. The points of a good butchers' bullock and a good dairy cow are very nearly the same, and should and can be readily combined in the same family. The Short-horns have always been esteemed as good dairy cows where they originated and are so here, their high prices only preventing. The grades have been much esteemed by all who have tried them. My individual experience is that they are excellent milkers, and this, I think, will be the experience of all when fairly tried.

Pedigrees. It may be thought that pedigrees should have had a prominent place among the active agencies enumerated in the improved breeds of domestic animals. That they are much relied upon in the maintenance of some breeds is quite certain. But it is equally certain that they had no agency in the original production of any. Pedigree is the line of ancestors from which an animal has sprung, but had no agency in the production of the ancestors. These were produced without pedigrees by the means, as we conceive, that has been discussed in the article. Pedigrees enable breeders easily to keep in line, and are of great service in perpetuating breeds and aiding new beginners, but can by no means be classed among the scientific principles of breeding. Some very remarkable breeds of domestic animals, are at the present time bred and safely maintained entirely upon the skill of their breeders. And we might add without pedigrees, and their progress in still greater improvement seems fully equal to the pedigree classes. The Cotswold, Leicester and South Down sheep may be named as illustrating the fact. There has been no declension in the staple of fine woolled sheep, yet they have not been pedigreed. Their origin and maintenance has depended entirely on the skill of their breeders. And we might add a number of the finest breeds of swine show the same fact, breeds that have been maintained in great purity for long

periods. This may be sufficient to show that pedigree has no claim to a place among the agencies of the science of breeding.

THURSDAY MORNING.

At the morning session, Mr. Lowder made some remarks as to the future success of the Association, and the importance of arranging a full and complete programme in advance, which were concurred in.

The question of color being suggested, Mr. Thrasher said that it had much to do with establishing fashion in Short-horns; that color ranged higher in this country than in England. His objection to red, was that frequently, a bull of that color was retained in the place of a superior one that happened not to be that color; that red ones are not the "handlers" that lighter colored ones are. He defined the importance of the touch, or "handle," and what was meant by the term; that he seldom ever saw red animals that were good to handle. In cows, a good handler was most frequently a good feeder and milker.

Dr. Bice said that the dark reds, like the Devons, did not sell well, and there was an idea that light colors did not ship as well. Mr. Matthews said that yellow reds all handle well, and that this shade was an original Short-horn color.

Mr. Williamson did not believe that the red would run into the black, and that red would outsell all others.

Mr. Meredith thought that the very dark reds were caused by in-breeding reds, thus intensifying color, but thought that whites were as bad handlers as reds, perhaps roans were better. He thought the graded Short-horns superior to either the pure bred or native cattle, as milkers.

Mr. Lockridge said that he had no prejudice as to color, thought all prejudice absurd. Some thought whites would not stand wintering so well, but the colder the regions, the whiter are the animals.

Mr. Lowder thought we were breaking down this prejudice and returning to the glorious old original color. He

said there were exceptions to all rules, that nature is very uniform in her work. If she starts out to make something very nice, she selects nice material, and in Short-horns she covers a fine tissue with fine flesh, and this with a fine hide, and does not put there, many coarse hairs. He further believed, that as a rule, white cattle, philosophically, and physiologically considered, are better than any other kind, and believed that in five to ten years, whites and roans would be regarded as the best cattle by the majority of the people, because so many inferior red bulls had been and are being reserved for use all through the country, simply because they are red.

Mr. Lowder suggested the following topics for the next Convention :

1st. The value of Short-horn bulls, and what are the characteristics of a breeding bull ; to be treated in an essay by Charles Lowder.

2d. The color of Short-horns, physiologically and philosophically, considered ; by Dr. W. C. Bice.

3d. Indiana as a grazing State ; by S. F. Lockridge.

4th. What constitutes a good or perfect model Short-horn cow ; by W. W. Thrasher.

5th. Preparation of Short-horns for exhibition, manner of showing in rings, and what are the objections ; by J. T. Williamson.

6th. The proper age of breeding, both male and female ; by H. C. Meredith.

The Association then adjourned to meet the 4th Tuesday in May, 1875.

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NOTE—We are indebted to Geo. W. Rust of the National Live Stock Journal of Chicago, for the full discussion.

AG. R.—17

ADDRESS BEFORE THE

## National Short-Horn Breeders' Convention

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BY DR. A. C. STEVENSON.

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*Gentlemen of the American Association of Short-horn  
Breeders:*

The location of our last meeting was thought to be very proper on account of its being upon the borders of the two States of Ohio and Kentucky, so long distinguished for their herds of Short-horns and their noted breeders and importers. But we meet to-day, by the kind invitation of her citizens, at a place and under circumstances none the less inspiring. Within my recollection this beautiful country was an uninhabited region—the home of savage men and the grazing grounds of wild beasts. It is but fifty-six years since this great and prosperous State of Illinois was admitted into the Union of States. She is now the fourth in size. Forty years ago the highways leading from Ohio and Kentucky might have been seen moving westward, team after team loaded with the goods of the emigrant, with wife and “little ones,” on their way to the new State of Illinois. They had heard of the beauty of her prairies, of the fertility of her soil, and were on their way to take possession of more than the promised land of the Israelites. A State of matchless fertility. Fields by nature made ready for the plow; unequalled fields of spontaneous grasses—54,405 square miles of arable land, watered on the north by



the great lakes, her western border in its whole length by that father of rivers the great Mississippi, and on the south by the Ohio. So goodly a land has rarely been possessed.

What a rare mixture of people we have here. Here are the descendants of the old slave-holder of the South, of free labor of Ohio and Pennsylvania, spiced up with a considerable sprinkle from the North. From this commingling we have a most wonderful race, as is manifest from the wonderful results of but a few years. Less than fifty years ago the State of Illinois was almost unbroken, an undisturbed prairie. In 1871, she had 2,004,392 acres in wheat; 6,923,076 acres in corn; in other field crops, 2,470,049; making an acreage of field crops of 11,397,517 acres. As a further evidence of her prosperity and material wealth, her net cattle numbered, 1,611,348, sheep, 1,073,497; hogs, 2,938,749.

This has all been accomplished in a little more than forty years, by those hardy, enterprising emigrants that were seen moving westward with their families, camping by the wayside, and with rarely more than one team and a cow or two. But this is a very meagre exhibit of what has been done by the people of this young State. Five thousand five hundred and sixty-six miles of railroad have been made, within quite a short period, with \$6,500,000 worth of rolling stock. At a fair valuation the Auditor of State (for 1871) thinks the taxable property of the State would amount to \$2,600,000,000. These evidences of greatness may well inspire you to-day. It is not only in corn and wheat, and cattle, sheep and swine, that Illinois is distinguished. She is alike distinguished for the unparalleled growth of her cities, her commerce, and her manufactures, her schools, her colleges, and her churches. She is also foremost in the production of statesmen. She has already produced two distinguished Presidents. And if she had have produced nothing but the Martyr Lincoln, this would have made her rich in her contribution of great and good men to the Republic; and last, but not least, she has produced one of the greatest

military men of the age—the present President. The name of Douglas will be revered by every son of the Prairie State as a great statesman, and as a benefactor of his State. The great Central railroad is a living and everlasting testimony; a monument worth far more than piles of stone and marble would be to his name.

Gentlemen, with these surroundings, with such inspirations, you meet to-day to consider a great interest, not only to yourselves, but of the greatest national importance.

Food is the first demand of nature. To supply a good, nutritious article is the object of cattle raising. This great interest of producing the best beef and milk, butter and cheese, is the end in view. Our objects are real and substantial. The rearing of Short-horns is no fancy work, intended for show or a profitless display. No charlatan will find this an agreeable Association. And should the work of charlatism be found developing itself among our breeders, it will be sure to find an exposition here.

The great object that we propose, is to increase the quantity of beef and milk.

1. By increasing the number of cattle.
2. By increasing their size and quality for beef and milk.

The number of our cattle may be many times doubled by occupying the limitless fields of prairie lying immediately west of us, reaching to the Pacific coast. A vast amount of worn lands east and south would be profitably changed from tillage to pasturage, with great benefit to the land and profit to the owners.

The increase of our cattle is greatly retarded by the annual slaughtering of cows and heifers, and should be discouraged. Upon the authority of the Report of the Agricultural Department the number of calves dropped to the first of June was one per cent. above last year:

“Calves. Returns from all of the States, of the number of calves dropped indicate an average increase over last year of 1 per cent. The largest increase, 9 per cent., is in

Nebraska; South Carolina, 8; Texas, 7; Wisconsin, Minnesota, 6; Iowa, Virginia, 5; Maine, 3; Pennsylvania, Michigan, Louisiana, 2; Vermont, North Carolina, Florida, Mississippi, West Virginia, Oregon, 1 per cent.; Illinois averages the same as last year, and Indiana, 2 per cent. less."

The quantity of the beef may be greatly increased by increasing the size of our cattle. The substitution of Short-horns would greatly increase the quantity by increasing the size over those of common or scrub cattle.

Two years ago I purchased 100 calves. They were of all grades, from scrubs to high grades. At the same time I had a few refuse thoroughbred calves that were not such as I desired to keep as breeders, and consequently trained them and wintered them with the lot that I had purchased. They were so kept until a few weeks since (altogether), when fifty-one choice steers were selected and sold, two thoroughbred Short-horns included. The lot averaged 1,370 pounds. The Short-horns were weighed, to see how they compared with the others. One weighed 1,570 and the other 1,600 pounds, or about 14 per cent. more than the whole lot, including themselves. One of the scrubs was then reweighed, and made 1,150 pounds, or about 28 per cent. less than the Short-horns. This lot were all three year old steers, and had the same fare from calves. I can make much better showings than this from my own raising, and also from that of others. This case is referred to, more on account of its late occurrence than for anything very remarkable, yet sufficiently so to show the superiority of Short-horns over common cattle. But this is not all. The purchaser of these cattle, Mr. A. Y. Bryan, placed the value of the Short-horns at \$1.50 per 100 pounds above the value of the common steers which, would at least, be 30 per cent. Now 30 per cent. in value and 28 per cent. more in size would make 58 per cent. in favor of the Short-horns. This advantage is due entirely to the superiority of the Short-horns as a breed, their keep being the same from calves. And this is not quite all, for a part of the scrubs are yet unsold, not being fit for market.

Of the milking qualities of Short-horns, we may reasonably hope for a good exposition by this Association.

The magnitude of the cattle interest of the United States is quite large, with a rapidly increasing consumption, the demand is likely to increase rapidly. No flesh is so generally relished, as good beef. No articles of food more in demand than milk, butter and cheese. Of all the domestic animals, the cow is first. What lady can feel at ease at the head of her table, without a good plate of butter? Milk is indispensable in childhood. What a convenient luxury cheese is—always ready for the table without cooking. There is no waste in the bullock; we eat his flesh, his hide protects our feet, his horns make numerous ornamental and useful articles, his bones are a good substitute for ivory in various manufactures, his hair is indispensable in the construction of buildings, and finally his refuse, whatever it may be, is used in fertilizing our soil.

We have no means of ascertaining the number of Short-horns in the United States or Canada, nor have we the means of ascertaining the number of neat cattle in her majesty's dominion. The number of neat cattle in the United States at the last census was: Beeves and store cattle, 13,566,205; of milch cows, 8,935,333; of work oxen, 1,319,271. Of this number, Texas is credited with the largest number, 2,933,588, and Illinois next, viz: 1,055,499. This number is largely increased at this date.

We have no reliable means of ascertaining the number of beeves slaughtered annually. The number of beeves and store cattle, which is 13,566,005, are all slaughtered probably in four years, which would be 3,391,338 annually.

A part of the store cattle will doubtless be added to the number of milch cows annually, but it is probable as many milch cows will be slaughtered, which will not materially affect our calculation. The value of beeves per head in New York in 1872 was estimated at about \$75. Now, to put the 3,391,338 at ten dollars less, and we have for the yearly slaughter of beeves, \$220,437,970. Now we hold that fifty per cent. may be added by the substitution of Short-horns.

for the cattle that are now sold as beeves, viz.: \$110,218,985. In other words, it would be equal to adding half the number of cattle to the amount now on hand.

Every farmer or cattle raiser who will substitute Short-horns for the common cattle, or even high grades, will certainly realize fifty per cent. in value over what he was receiving for common cattle, which is well worth the consideration of every farmer, and for the truth of this statement we will refer him to any shipper, feeder or butcher.

I may congratulate you, gentlemen, on what you have accomplished, and also on what you have the prospect of accomplishing in the future. Your annual reports have already awakened public attention. This is manifest in the increased demands and increased prices paid for Short-horns. And the demand is still increasing, and should continue until our 23,820,608 cattle are all Short-horns, or some other breed equally good.

It is quite an extensive work to change our present stock of cattle to high grades, and this should be accomplished as speedily as possible. The number of milch cows being 8,935,332, and supposing them all common cattle, it would require, at fifty cows to the bull, 178,706 Short-horn bulls to bring them up to grades. From this it may be seen that there is little danger of an over-supply, of Short-horns.

Combined effort has ever been the most successful mode of accomplishing ends. We have the most flattering prospects of great good being accomplished by this association. The field before you is a large one. The breeding, raising, summer and winter care of cattle—food, and the best modes of preparation, etc. These subjects, with many others, are worthy the consideration of breeders generally. You will pardon me, gentlemen, for detaining you so long, and I will conclude by reminding you that the country is looking to you for important truths upon the subject of cattle-breeding, knowing that this association is composed of the breeders, not only of the United States, but also of many of the most eminent breeders of her majesty's (Queen Victoria, dominions of North America.)

# MANAGEMENT OF SHORT-HORNS.

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BY W. R. DUNCAN.

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*Mr. President and Gentlemen of the Convention :*

The duty has been assigned me of preparing a paper to be read before your honorable body, on the proper condition and management of Short-horns for breeding purposes, to secure the most thrifty, vigorous offspring, for the greatest length of time. In entering upon its discharge, I must be excused from offering any fine-spun theories, and from the discussion of such theories and opinions as have from time to time been given to the public through the stock journals, the agricultural papers, and the public discussions of the country. I must be allowed to confine myself to the expression of such views as I entertain from practical observation.

As the law of nature, that like produces its like, is the most reliable law by which the breeder can be governed, I lay it down as the leading principle of this argument, and recommend such treatment from birth, as will keep the animal in the most healthy, vigorous, robust, active and growthy condition, up to the period at which it is most advisable to couple with the opposite sex with a view to procreation. This should be done by the time the female is twenty months old, as twenty-nine or thirty months is the most suitable time for giving birth to the first calf.

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NOTE.--Delivered before the National Short-Horn Breeders' Convention.

All of our improved varieties of vegetables, fruits and flowers, are the result of culture. The highly improved breeds of domestic animals which are found over the whole country, are the result of culture. The *Angle-Saxon*, as we see him to-day, is the result of culture.

As vegetation has required cultivation from its germination to the period of maturity, and our own race the greatest amount of care and training from the cradle to mature manhood, in order to acquire the results of the present age, so must we cultivate the Short-horn or any other domestic animal from its birth to the period at which we expect it to become a producer, keeping it all the time in the condition I have indicated, and holding it there, or as nearly there as possible, through life, in order that the law of nature which I have given as a leading principle, may assist the breeder to the fullest extent along the road to progress, to higher attainments, to yet grander results.

In order that the condition herein indicated may be attained, the animal should have such an amount of good nutritious food as the system requires, which is always indicated by the laws of nature and of health, and should spend something like one-half of its time in open air, with the privilege of exercising as much as it is inclined up to the period of maturity. After that the amount of food the animal would take, even with the exercise, would often produce more flesh and fat than would be desirable; or would change the condition from what it should be as defined by this article. In that respect the breeder should exercise his judgment as to the amount or quality of the food taken, and not allow the animal to get higher in condition. As I am opposed to the starving process I would recommend such a change of food as may be necessary to hold the animal at the desired point. All the grass, hay, or straw that a breeding animal will eat, will do no injury at any time if the proper condition has previously been observed. All animals require more and better food in some conditions than in others. The food should be more nutritious in winter than in summer, and more

nutritious for the nursing cow than for the dry cow. When breeding animals are raised in such a manner and upon such food as will only produce the condition described, instances of unfruitfulness will be of rare occurrence, and the period of procreation much longer than by its non-observance.

After the birth of the first calf, which should occur, as I have stated, by the time the heifer is thirty months old, she should be coupled with the male again, in from sixty to ninety days, and not sooner, in order that she may produce the second calf in about one year from the first; and so on while she continues to breed, always drying her off from sixty to ninety days before calving. One birth a year is as often as any cow should produce; and nine months in twelve is as long as any cow should give milk, if it is desired that she should continue to produce to the latest period that nature will permit.

Should the treatment in early life, or afterward, be such as is not herein indicated, and the animal becomes too fat for fruitfulness, what should be the remedy? Exercise, and not starvation. Put the animal to work, moderately at first, increasing it day by day until the animal is doing all the work that a reasonable man would require of any animal. Starvation and a lack of exercise impairs the constitution and shortens life. Labor, with food enough to sustain the system, increases muscle, hardens bone, expands the lungs, and generally invigorates the whole system, although the juices of the flesh and the fatty portions of the body may be lost, which must be the case if the desired object is accomplished.

Male animals designed for breeders should be kept as much as possible in the lot, and not in the stable or box stalls fed in a box or trough, with good, healthy, nutritious food, in such quantity as to insure a vigorous growth, after allowing all the grass or hay the animal will eat, keeping him up only in very bad weather, and then no longer than it may be storming. Exercise in the open air is conducive to health in man or beast, while lying on the ground has a



tendency to keep the system of an animal cool, which is very necessary when an animal is eating stimulating food. His order should not be so high at any time as to interfere materially with his service, but should always be so good as to be vigorous and healthy. He should rather be improving than declining, and should render but one good service to each female, and never more than two, in one day, if in full work.

Short-horns have become among the most valuable of all domestic animals, and large as have been the prices paid for first-class animals, it is seldom indeed that any one animal fails to refund the purchase money, with a good interest, when they live to an ordinary age free from accident; while many of them yield a good fortune to the purchaser in one life-time. The introduction of Short-horn blood into America has so improved the quality of beef as an article of human food, and has so increased its quantity within the period, that there is no such thing as estimating their value to this country; neither is it possible for any one at this time to comprehend the importance of the work you have assembled to consider, and the interests of which your organization was formed to further. To make two blades of grass grow where but one grew before is a grand achievement in agriculture, but to make five pounds of beef of a highly improved quality with the same amount of food, and in less time than is required to produce three, before, is a much grander achievement, because it enters so immediately into the most healthful food of man. The labors of your organization, and of the American breeders of Short-horns, is too vast for my comprehension; it would be evidence of great weakness for me to attempt to show it to any one. This country is so great in extent and its interests, and its population increases so rapidly that we can not tell what one year will bring forth, much less a century. It is plain, however, that the labor of the American breeder of to-day is to materially affect the interests of the next generation. Is it not then highly important that the best means of raising and managing Short-horns with a view of lengthening

the productive period, and of producing the highest specimens of the race, be not only considered by this convention, but become the study of every breeder in the country, with a view of making it his chief object? In other words, calves are what every breeder should endeavor to produce, even should it result in withdrawing every Short-horn from the show-rings of the country. If they can not be shown in breeding condition it is best for every one that they should not enter the show-ring at all. Many of the most valuable stock producers of the past never won a premium, neither were the dams of the best bulls now living, of the two most celebrated families, ever seen in a show ring. They can be shown, however, in that condition, and should never be shown out of the best and most certain breeding condition. It is in that condition they are worth most, as calves are worth more than premiums.

The committee man that can not judge of the merits of the animal in that condition is not a competent one and should be excused. While I have at all times endeavored to impress the importance of good feeding and proper care of breeding animals on every one, I must say that in my judgment it is being greatly overdone by many of our breeders, in consequence of their ambition to excel in the show ring. In fact there is much more lost by the present mode of preparation for the show ring than all the premiums of the country amount to. The Duke of Gloster was but seldom in the show ring. The Duke of Airdrie never won a prize. Old Renick was never in high show condition. The old Baron of Oxford lived fourteen or fifteen years without ever being considered a prize taker. The dam of Minister was never in a show ring; neither were the dams of May Flower, of Breastplate, or the 24th Duke of Airdrie ever seen on a fair ground, or if so but seldom. The 4th Duke of Geneva, the 10th Duke of Thorndale, the 11th Duke of Geneva, and the 21st Duke of Airdrie are among the best sires of the last few years: none of them are show bulls. The best son of Breastplate is from a cow that was never in a show ring. Young Mary, by Jupiter, produced her last

calf in her twenty-first year, and left behind her an innumerable posterity of prize animals, yet she spent but a small portion of her life in a stable, and was but seldom in the show ring. Mazurka, by Harbinger, was not the prize cow of Mr. Alexander's herd, yet she left behind her a much more celebrated and valuable family than Belum or Forget-me-not. Miss Hudson, by Hermes, was never in a show ring, yet she left behind her the celebrated London Duke and Duchess family. Goodness, by Orontes, won but few prizes, yet she left behind her the Dukes and Duchesses of Goodness, a family growing in favor every year; the Roses of Sharon, the Gwynnes. The Misses Bates and the Nelly Blyes are all descendants of cows but little known to fame in the show yard, cows well bred, but only kept in the best condition for transmitting the valuable characteristics of the race.

# Agriculture and Agricultural Fairs.

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BY JOS. POOLE.

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According to Biblical history, agriculture is one of the oldest vocations of man. It commenced at a very early day in the Garden of Eden, and dates back to a very short time after the creation of the first human being. It is first mentioned where it speaks of Cain as a "tiller of the ground," and Abel as a "keeper and feeder of sheep," offering the firstlings of the flock as sacrifice. Agriculture may be defined as the art of cultivating the ground and obtaining from it the products necessary to the support of animal life. From its very beginning we find it divided in two grand divisions, the tilling of the soil requiring the active labor of the brain and hand, and the raising of animals, requiring less labor but much care and watchfulness. The earth was in a state of nature and reliance on the fruits of spontaneous growth was doubtful. Our race was doomed to toil, and necessity soon showed that she was the mother of invention.

Our forefathers wandered from place to place, and finally to the well-watered countries of the Tigris and the Nile, which were found very productive. We read of Noah becoming a husbandman and planting a vineyard, and that Abraham was very rich in cattle, and that Lot had flocks and herds, and that their stock increased so rapidly that the country would not support them. We also find that Saul, though a king, was fond of driving a herd of cattle, and that David was fond of feeding his ewes. When Elisha was sought, for the purpose of making him a Prophet it is said he was

found plowing with twelve yoke of oxen, which would be a large team in these modern times.

The agriculture of a nation must of course be governed very much by the climate, products and general features of the country they inhabit. Mankind, when only partially civilized would not work for mere amusement, and when the country was thinly inhabited there was no need to work, the fertile spots and wild animals furnishing abundant food for all their wants. The process employed must have been very simple at first, confined without doubt to preparing the earth to receive the seed, without any attempt to stimulate its growth by cultivation or manures. Egypt, Chaldea and China, were undoubtedly the first nations that reduced agriculture to practice in ancient times. It is probable, that animal power was first applied and some implements used in these countries. From Egypt, a knowledge of agriculture extended to Greece, and we find it in rather a flourishing condition one thousand years before Christ. Here we have the first description on record of a plow, with beam, share and handles. Greece advanced rapidly in agriculture and in some provinces, in the days of her greatest glory, it was in a high state of perfection, and we learn that she had fine herds of horses, cattle and swine.

The use and value of manures were also known. Compost was extensively used; and thorough tillage was understood; they ploughed with mules and oxen and raised many of our best fruits. Agriculture was not a source of pride with the Greeks, but was very much appreciated, and became a fundamental idea among the Romans. A tract of ground was allotted by the State to each citizen and he was positively restricted to the amount granted. The law limited each citizen to six acres, and a celebrated Roman orator said, "A man was not to be counted a good citizen, but rather a dangerous man to the State, who could not content himself with seven acres of land." Owning large tracts of land was looked upon as a calamity, and Cato said, "Our ancestors regarded it as a grand point in husbandry not to have too much land in one farm, for they con-

sidered that more profit came by hol ling little, and tilling it well." Virgil said, "The farmer may praise large estates but let him cultivate small ones." The same writer prescribed a curious treatment for working oxen: "After oxen get through ploughing and come home tired and heated, they must have a little wine poured down their throats, and after being fed a little led out to drink, and if they will not drink, the boy must whistle to make them drink."

It may be doubted whether that suggestion was not in general use, at that time, and if it was, and had some merits, it might be considered of doubtful expediency at the present day, and certainly would not be tolerated among our "Crusaders." Pliny says "Four hundred stalks of wheat, all grown from one grain, was sent to the Emperor Nero, from Byzantium in Africa, accompanied by a statement that "The soil when dry was so stiff that the strongest oxen could not plow it, but that after a rain he had seen it opened by a share, drawn by a wretched ass on one side, and an old woman on the other." Thus it will be seen that the luxuriance and multiplication of this growth of wheat is enormous and surpasses anything of our day. The Romans at this time, had different kinds of plows to suit different soils, and indeed nearly every variety, (as far as principles of construction are concerned) that we have at the present day.

Manures were saved with great care, especially the excrement of birds. Hollow places were scraped in the shape of bowls to receive the wash from houses and stables, and fluid and other manures were used with great judgment, and scientifically applied to their crops. Stubble and green crops were plowed under and considered of great value to the soils.

Perhaps the ancients were much behind us, and suffered more inconvenience for the want of *mechanical power* as a substitute for hard labor, than from any other cause. The mechanic arts languished; even the grinding of corn was performed entirely by animal labor. The water-wheel was

unknown until one century after the birth of Christ, and the windmill was not used until the eleventh century, while the mighty power of steam was entirely unknown until a century ago. From the fall of the Roman Empire in the 16th century, agriculture retrograded, was uncertain, and occupied a poor position among the other industries of the world. Constant wars, uncertainty of governments, devastating armies and conquering kings marching from place to place, the destruction of crop implements, materials and domestic animals, all combined to discourage and destroy agricultural pursuits, and but few crops were raised.

In England, neither Indian corn, potatoes, squashes, carrots nor cabbage, were known until after the beginning of the 15th century. The poor *peasants* subsisted chiefly upon bread, made of barley ground in the hand-mill.

The first work published in England on agriculture, was in 1534, by Anthony Fitz, an "herbest," who styled himself a farmer of forty years. The next was published in 1539. In those two works, and at this time, many subjects and questions in regard to cattle, soils, and the cultivation of crops, are treated, which had been discussed and practically settled and disposed of over 2,000 years previous.

Other works and publications followed, with but little additional merit, until the commencement of the eighteenth century, when Jethro Tull made the first important attempt at real progress in agriculture of modern times. He was a great original discoverer, and in his theories, fell into many errors which brought some discredit upon his work, but we can excuse his errors when we consider that he was "striking out into unknown waters," without compass or chart, and almost entirely dependent upon his own good sense and judgment. From 1802 to 1812, Young, Sinclair, Karnes, and Davy, published books and lectures on agriculture, and done much to advance it and reduce farming to a science. Davy's works on soils and manures, and their adaptation to the different cereals and other crops, were received with great favor and applied and used with much profit.

Within the last half century, chemistry has been applied  
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to agriculture with much profit and great success, and is now one of the leading sciences, taught and practically applied in all our agricultural colleges.

Labor-saving machines have increased beyond any precedent, and though used with great success and received with much favor in this country, in England and other countries, they have been watched, by the laboring class of their citizens, with much jealousy, and even as late as 1830 the laborers in England went out in force and, with mob violence, destroyed all labor-saving machines they could find. In 1867, when I visited England, in traveling from London to Leicester, I found the same feeling very strong, and laborers positively refused to work for any farmer that would use mowers and reapers, or threshing machines. They claimed that these machines were making work more scarce, and depriving the poor of the means of making a living. But the facts at that time and now, both in England and this country, prove that those and other machines and implements bring no such results, as labor is more in demand and at better wages than ever before known. The first plow was patented in England in 1730, called the Dutch Plow, and the next the Cosey Plow, in 1797. The first cast-iron plow on record was made in 1763, by Small, in Scotland, and the first made in the United States was made by Newbold, of New Jersey. The reaping machine, though of modern date and use with us, is quite ancient in its origin. About eighteen hundred years ago, shortly after the birth of Christ, we read of a cart set in front with knives and pushed with oxen, which was used for cutting grain. But their use appears to have been of doubtful expediency, and we hear but little more of them in any form until the beginning of the present century. They were used at first with grave doubts of success.

Within the past half century they have been greatly improved and so constructed as to be adapted to almost any surface, and are in such high repute in this country that scarcely a farmer of any note is without one. Over four hundred different patents have been granted within the



past eight years, and at one shop in Chicago four thousand were manufactured in one year. Other farm implements and machinery has kept pace with the reapers and mowers, until the same number of laborers with the improved implements and machines will double the work and the crops. The threshers, reapers and mowers may now be considered types of the present, and the sickle and flail types of the past modes of agriculture.

The improvements in roots, grains, and animals has been equally rapid and gratifying. Cereals have been mixed, manured and improved until the products have been more than doubled. Animals have been crossed and improved, and the very best breeds secured for propagation until the same amount of feed and care will produce one-fourth more flesh.

At the beginning of the eleventh century, and even as late as 1390, six or seven bushels of wheat to the acre, was considered a good crop, while our crops now more than thruple that amount. Much of all our prosperity and advancement in agriculture, is due to the improvement and advancement in agricultural chemistry. Young and Davy made some good suggestions in theory in their day, and deserve great credit as pioneers, but the most rapid and gratifying results have been brought to light since 1840, by such human benefactors as Liebig, Johnson, Laws, Way and others. The soil and manures of all kinds have been analyzed; the producing ingredients of all the different crops that sustain animal life, ascertained and published, and with this knowledge the farmer has been enabled to reduce the theory to practice, and by this means to know the exact soil, manure and crop to place together to make the greatest yield from the same amount of labor. By experiments in organic chemistry, it has been ascertained that bone dust possesses the greatest amount of wheat producing ingredients, and that forty pounds to the acre is sufficient to produce three good crops. Guano, plaster and lime, are the next best wheat producers, while liquid and other manures, are much better for other crops.

With the light of agricultural science and chemical analysis of all crop producing agents and practical results of scientific farming that is now published in agricultural books and papers throughout the civilized world; with all the improved machinery and farm implements, agricultural pursuits have reached a high state of perfection and occupies an enviable position among the vocations of man.

The first agricultural society we find in history was organized in Scotland in 1723, and was called "A Society for the Improvement of Agriculture." That nation, since that time, has improved and advanced rapidly in agriculture, and to-day possesses the best and most extensive agricultural museum in the world. I visited it in 1867, and spent over one hour in examining the specimens of wheat alone. There were one hundred and twenty-eight different kinds, with small sheaves exhibiting the straw, length of head and form, with little boxes at the foot of each sheaf containing the grain of the different kinds, with its name and that of the country in which it was raised. Every other product was exhibited in like manner. It is a grand agricultural show, and to a lover of the products of the soil, nothing can be more interesting.

In 1730, thirteen agricultural societies were established in England, with nineteen auxiliaries or smaller societies.

In Dublin, Ireland, in 1840, an agricultural society was formed which gave quite a stimulus to agriculture in that country.

In 1793, the London Board of Agriculture was established by act of parliament, and by authority and encouragement from the government much good was accomplished. Many other societies originated in these countries, between those dates and since that time, that has done much invaluable good to the inhabitants of those countries.

In 1784 the first agricultural society in the United States was established in South Carolina, and in the same year one was established in Philadelphia. In 1791 one was established in New York and another in Massachusetts. Our own organization in Indiana was established in 1851,

and the first fair held in September of that year. Societies have increased very rapidly in the United States and are received with much favor by the people. At this time nearly every State in the Union has its society and its "*Board of Agriculture*" which publishes an annual report, containing the transactions of the Board, with reports from all county and district societies; reports the holding of fairs and expositions and interesting and useful information and practical experiments in relation to agriculture and the mechanic arts. State Fairs or Expositions (on a larger scale) are now held in nearly every State in the Union once in each year. And in many States, county and district fairs are also held with great profit to all producers. Much might be said of the benefits and advantages accruing to agriculturists and mechanics from these exhibitions as held and conducted in this country. Agricultural exhibitions may be said to be decidedly American institutions of the present age, although not of modern origin. Education and civilization has done much to change their character, for as far back as the year 800 we find Charlemagne establishing them in France; and also in 1071, William the Conqueror gave them great encouragement in England. The ancient games celebrated every third year, in honor of Apollo, with wrestling, horse and hurdle racing and seal fights; also the bull-fights of the Spaniards, are not even yet entirely discontinued. The coliseum of Rome, capable of seating 80,000 persons, was erected between seventy-five and eighty years before the birth of Christ by the Emperors Vespasian and Titus, Gladiators met annually here to contend with each other and with wild beasts. These tournaments but a few centuries ago, were fairs suited to the age, when they prevailed, but have gradually given way to the light of Christianity and civilization of the present day. That light burns brighter now, and is making more rapid progress than at any period of our world's history.

The cause of improvement is on the great trunk railroad, (of modern invention,) under full headway, with lightning speed, rushing forward towards perfection, while ignorance,

superstition, and despotism—types of former ages—are rapidly giving way, to the great benefit of the whole human family. Money, or accident of birth, no longer sways or controls the world, but brain, thought, energy, and perseverance, are ruling powers of the present age.

That individual, who gives to the world a new and important idea or invention, is a benefactor to his people—greater than a king or emperor, stronger for the good of his race than a Roman gladiator, richer than a Croesus, and is in fact a nobleman by the right of nature and his own manhood.

The great practical advantages of fairs and expositions are apparent to every mind, and, from the various exhibitions of all products, salutary and invaluable information may be obtained by actual observation and free interchange of opinions, and practical known results.

The time and place of holding fairs and expositions is the great advertisement day in every county, district and State where they are held. All the various grains, roots, vegetables, fruits, machinery, farm implements, live stock, manufactured goods, and other products from all parts of the country are on exhibition, seen and examined by all. The very best and most valuable seeds, implements, machinery, livestock, manufactured goods, and other products, can be examined, selected, and the very best and most approved modes of production and cultivation learned. The practical demonstration and information obtained in one day at these annual shows and expositions may be worth thousands of dollars to any one desiring reliable facts. London gave us the first great fair, or World's Industrial Exposition, at the Crystal Palace, in 1851. It was a grand exposition of the products of the world, and a credit to the English nation.

The United States, at the City of New York, in 1853, gave a similar exposition that created a lively competition and done much good, and exhibited a comparison of our products with older nations that left no cause for regret by the American people. In 1867 the great show and expo-

sition of the world took place at the city of Paris, in France. All former agricultural and industrial expositions were eclipsed and far excelled by this extensive and gigantic display of national products, enterprise and ingenuity. The palace of the exposition, situated on the Champs De Mars, covered a space of 161,304 yards, and was 1,593 feet in length. The ground inclosed contained 105 acres.

It was held at a very auspicious time. All nations of the earth, with scarcely an exception, was at peace and in a prosperous condition. France, with the city of Paris, occupying a central position for the whole world. Napoleon and the French nations, all conspired to assist in making the greatest show in the world. All countries, with nearly all the kings, emperors, sultans, and other heads of governments, were present and represented their respective countries, with a show of all their products, houses, machinery and people, with their mode of living. It was a grand view of all nations to be seen in a few days, and more than could be learned by travel in as many years. In 1873 another World's Exposition was held at Vienna, in Austria, which is said to have been a grand show and well worthy of that nation. The same year the State Board of our own State, with the assistance and means of the citizens of Indianapolis, built a fine and commodious building on our State Fair ground, and in connection with our State Fair, held an exposition. The two combined made a grand State show; was well patronized, and was considered a good success. In September last, another exposition was held under the same combination. It was a good and very creditable exhibition, but the patronage and receipts were not sufficient to pay old debts, caused by the exposition and current expenses.

Nearly every county in our State, at this time, has an agricultural society, besides many district societies, formed of two or more counties, which, by our laws, are directly connected with the State organization and feel a deep interest in its condition and financial success.

Agriculture underlies all other occupations; is based

upon the first principles of animal life; should, and must be sustained by our laws and our people, and, financially, must stand clear of incumbrance and promptly pay all obligations and liabilities or it can not be a good success.

Only those who cultivate the earth, or otherwise bring into use the natural powers of the vegetable, mineral or animal kingdom, can be regarded as really increasing the wealth of a community. Artisans, merchants, scholars, public officials and professional men are unproductive persons. At the same time many of them are very necessary and useful persons to the farmer and producer, in carrying on his occupation, and should receive proper support and encouragement.

Agricultural associations, fairs and expositions, should be encouraged and supported by all classes. Every new idea should be examined and reduced to practice, and all means from all sources, secured that will be a comfort and a blessing to the human family.

# FORESTS OF SOUTHERN INDIANA.

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THE EFFECT ON AGRICULTURE—HOW THEY  
SHOULD BE REPLACED.

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BY M. B. KERR.

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A great portion of the lands now being tilled, particularly in the hill country bordering along the Ohio river, would yield a much greater income if the timber had never been cleared. The farmers have discovered that by removing the underbrush and trash from their woodland and sowing grass seed, they can produce as good pasture as upon cleared fields; and no farm is complete without an abundance of good, well-shaded pasture, and land owners now perceive the mistake they have made and the losses sustained by clearing too large a portion of their lands.

Many of the farmers of the county of Dearborn are now suffering great inconvenience for want of timber. Some, having none at all, are compelled to buy at a heavy outlay for building and fencing, and are hauling coal many miles into the country to be used for fuel; and that too, where, twenty-five years ago, there was burned in log piles, one hundred cords of wood per acre to clear the ground. The poorest lands for cultivation were generally the most valuable timber lands, and would produce the best woodland pasture, and if such lands had not been cleared and the timber preserved on them, would have been worth more at the pres-

ent time than all that has ever been realized off them, the lands in their present state included. This is about the average condition of Southern Indiana. The few isolated patches of timber, now remaining on the farms, have been culled of the best trees until they are of but little value except for fuel, and are so thin they afford very little resistance to storms, and are rapidly disappearing, from being blown down and dying of wind shake.

The velocity and destructiveness of wind-storms has greatly increased since the country has been so nearly denuded of its forests. In 1873, it was estimated that the corn crop in many counties was damaged twenty per cent. by the destructive storms of July, and the past year, 1874, the damage to that crop was considerable in many places. The meadows, grain and orchards, suffer greatly for the protection once afforded by the forests shielding them from the bleak winds of winter and early spring. And it is an undoubted fact, that the drouths of summer are more frequent and protracted. Streams that when the country was first settled afforded mill-power nine months in the year, on an average, do not now afford it six months in a year; that is, the volume of water in the creeks seems to be diminished at least one-third.

By this I would not wish to convey the idea that the general waterfall had diminished one-third, although our snows of winter and rains of summer are less frequent than they were twenty-five years ago. It is the irregularity of them which we complain of rather than the diminished quantity.

The cleared fields and openings, well washed ravines, affording no obstruction to the water, it passes off with much greater velocity than when the most of the lands about the sources of the streams were heavily timbered, hence it is carried more rapidly out of the streams and their flow is less regular.

The warm radiations taking place from the treeless hills and plains, soon have the ground in a parched condition,



vegetation is checked, pastures are dried up, and field crops are cut short.

The effects upon the fruit crop are evident. In the first settlement of the country, peaches seldom failed to produce a full crop; now, they seldom produce a crop; failure is the rule, rather than the exception. The same causes affect the apple; the trees are longer in coming to the bearing state, the yield is becoming annually smaller, and the fruit less perfect. It makes but little difference which slope of the ground is taken to plant orchard or vineyard, unless the wind-break be a forest. A bare hill gives no protection; the wind pours over it as water passes over a dam; but if the hills are capped with trees, the windy cascade is resisted, divided into spray, and both its violence and temperature greatly modified.

These theories are borne out by the test of actual results. From the thirteenth annual report of the State Board of the Maine Agricultural Society, we learn that "from all parts of the State comes the same complaint of the diminished volume of water in the streams, occasioned by clearing up the forests and denuding the hills of trees. The snows are not so heavy nor so frequent as they were twenty years ago, and there is less rain in summer. Many of the old trout streams of twenty years ago are now completely dry, and several parts of the State suffer more than formerly from drought, and snow covers and protects the ground with less regularity."

Shall we take heed of this warning from New England, and provide in the future against such a calamity? We have also warnings from Europe.

At the International Congress of forest culturists, held in Vienna in September, 1873, presided over by the Austrian Minister of Agriculture, it was shown that all the principal rivers of that continent show lower water marks than they did before their sources were denuded of forests. At Altenbruch, in the Kingdom of Hanover, the water marks are ten Hamburg feet lower than they were sixty years ago; that a portion of Wurtemberg has been reduced

to comparative barrenness by the exhaustion of the forests, and that the increase and severity of the drouths in Hungary is attributed to the rapid disappearance of the forests of that country. The region of Triest, on the Adriatic, was once a fertile country with heavy forests, but the Venitians drew so heavy upon it for piles and other timbers upon which to enlarge their water washed city, that they completely stripped the country of all its valuable timber. The woodman's axe being followed by fires, the whole country became a dreary waste, destitute of rain and soil. Of late years the Austrian Government has planted millions of olive trees on this great belt of waste land, it being so poor in many places that the soil had to be transported in baskets to make it sustain vegetable life, and it is now said that the rains which ceased to fall there twenty-five years ago are again beginning to enliven that country.

All scientific authority claims that densely wooded lands in summer gives out a cooling radiation which condenses vaporious clouds, and causes rain to fall. This was the opinion of Humboldt. And Professor Fernald says, "while the forests may not sensibly affect the mean temperature of the globe, or the total quantity of precipitation, they unquestionably do promote the frequency of showers and equalize the distribution of rain through the different seasons." He attributes the influence of trees principally to the cooling effects occasioned by the evaporation of moisture from their leaves. As this process is constantly going on in the hot season, the column of atmosphere over the forest is cooler than that over the denuded land. Therefore, the rain clouds in their passage over the earth are condensed more rapidly, and sooner formed into rain over forest, than over naked land. On the other hand, clouds charged with vapor are often dissipated in their passage through the heated atmosphere of the denuded lands without parting with the water they contain. Many able writers also support the theory that an electrical action is produced by the points of the leaves upon the atmosphere, compelling it to yield up its moisture.

But aside from all this theory, within the recollection of the writer, covering a period of about forty years, in this part of Indiana, and through all southern Ohio the summer's drouths have become much severer and the streams visibly smaller, and we can attribute it to no other cause than destruction of the forests, without substituting a like agency.

Against the occurrence of such a calamity as a forestless country we have the remedy of forest culture, and if properly applied, experience and observation has taught us that it can be made amply sufficient to meet every want. Already some attention is being given to this important subject in some parts of the Western States. Iowa reports success so far as tried, but she must greatly increase what is already begun. In Europe forestry has long been a cherished object of both government and land owners. England can show the finest forests to the size of them, in the world, cultivated from the choicest varieties of timber, many of them of foreign origin, including the American locust.

And if forest culture is not begun at once and practised pretty extensively, the beginning of the twentieth century will find this country suffering great inconvenience for want of necessary timber; in fact will find it exhausted in many parts of the country. The extravagant use of timber for railroad purposes, and the great demand for it as a general building material is not likely to diminish for many years. And should all this broken country remain denuded of its forests many years, it might become a barren waste. It was once very fertile, and yet has a good soil in many places, but is fast wasting, and unless it is kept up to remunerate labor, labor will remove from it.

Such have been the extravagant notions of the American people that much of their labor has been expended to disadvantage. The rule has been to undertake to till too much land for the labor they commanded or their means of sustaining the soil. The aim has been to make the quickest cash returns without regard to the future welfare of the country. In a country composed of such varied qualities

of lands as the southern part of the State, it is highly proper that at least one-third of every farm should be used for pasture and at the same time it will be no detriment to the pasture, if it, with proper management, be made to produce timber enough to supply the other two-thirds with fencing and building material, supply the manufacturing wants of the country, and furnish a large portion of the fuel. Let each farmer select that part of his land least suited for tilling and plant it in the most valuable varieties of timber known to succeed on such lands. The greater part of which should be the common locust tree. It succeeds on all dry lands with clay sub-soil, is of rapid growth, the most valuable fencing material we have, can be used for building purposes, is very durable and a good fuel. Locust posts have been known to last seventy years in the Ohio river bottoms. This timber should be planted about nine feet apart, or so as to grow about five hundred trees per acre. Having no practical experience, but basing calculations on observing the product of this timber where poor and rough pieces of land have been abandoned to the volunteer growth of it, I can draw the conclusion that with but little preparation or attention, except to get a good stand on the ground, there might easily be produced, in twenty years' growth, three hundred dollars' worth of locust timber per acre, or in thirty years' growth, six hundred dollars worth, counting on present prices, or enough to fill two miles of railroad with cross-ties, which last four times as long as the material now generally used.

And during all this time the land pays a fair income in the way of pasturage. The leaves of the locust being small, though they have great fertilizing qualities, never scald or kill the grass; in fact, pasture grasses succeed better in locust timbered land than in open fields. The next timber in value is the Black Walnut. It is very durable, of rapid growth and can be used for more purposes than any other timber. The best buildings that are made of wood can be made entirely of walnut, and it furnishes the best cabinet material that grows. The three next varieties

in value and worthy of culture are the Oak, the Hickory and the Ash. These five include all the varieties of hard timbers of any great value, though there are timbers that make better fuel than any of them, but lack general qualities.

In forestry the valuable timbers alone should receive attention. One acre of selected or cultivated forest may be made of more value than two acres of the primitive forests, though this generation may not live to see it. The Legislature should pass an act exempting every acre cultivated to timber from taxation during the first ten years of its growth, or even longer, as an inducement to land owners to commence forestry.

The present generation owe it to those coming after them, that this country be immediately dotted with young forests. They should not let the primitive forests become entirely exhausted without providing for the future welfare of the country. A wood dearth would be as great a calamity as a bread or a beef famine. Use the ax more sparingly, guard against forest fires and prepare to perpetuate those necessities of life, and we will have discharged our duty as well as set a good example for future generations. Parents may spend their physical powers and exhaust the soil to lay by money for their children, but should remember there is no legacy equal to a good example.

# GRASSES.

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BY T. N. LINK, RUSH COUNTY.

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The Secretary of the State Board specially requests of each delegate his experience on important subjects, and I would urge on the farmers of Indiana more attention to the grasses they cultivate, as well as to inform themselves of the properties of others, that as yet are but partially noticed. At present, timothy, clover and blue grass, of the grasses, monopolize the attention of the farmers of Indiana. These in absence of severe drouths, probably can not be duplicated, but who that has seen the timothy and blue grass sods of the three last seasons of drouths, but will admit that in these emergencies there is room for improvement.

I am led to this conclusion from having had some experience with *Orchard Grass*. It seems almost imperious to drouth, its vitality not the least effected by close grazing; of rapid and vigorous growth; as a winter pasture stands cold equal to blue grass, and is of equally early start in the spring; and to have the full advantage of this grass the ground should have a complete set and closely grazed from early spring until within six weeks of the end of the growing season, when it should be permitted to make its winter garment.

To fully control orchard grass to yield its highest profit, it should be in an enclosure to itself, where stock could be confined for early grazing, shielding the other less hardy and less vigorous grasses to a more mature growth, thus

able to withstand the ravages of herds already despoiled of their ravenous propensities. Orchard grass thus treated by those who have closely tested it, are its strongest advocates, vouching for its succulent and nutritive qualities. The grasses of Indiana have each their distinctive qualities, and to avail ourselves of their rich treasures, their natures and qualities must be studied, treated and appropriated in accordance with the same. Clover is the fertilizer of Indiana. Each plant is a little chemical laboratory, busily working above and beneath the surface for the farmer's good. And if you choose to cripple its work in that direction, and call on it for forage, its granaries are full and at your service. It, too, laughs at drouth, and all it asks is, that when chill winter comes, it may be suffered to lie in still repose two short years on an active mission of good, and its life is ended. Timothy, were it not for its hay-producing qualities, as an article of commerce, its exhaustive qualities, would have long since condemned its culture, but for want of a better substitute let it fill its place.

Blue-grass. In the rich soils of Indiana for grazing purposes, when properly managed, it has no superior. Give it age of sod and nothing but excessive drouth need cause us to ask for a substitute. It is the young man's glory; the old man's friend.

That there are other grasses worthy a thorough trial in Indiana I have not the least doubt, and although it may seem that the catalogue is full for all practical purposes, yet, we should remember that nature is not circumscribed in her bounties, but endless in her varieties, and only asks of us to seek an acquaintance, and partake of her treasures.

# GRASSES OF INDIANA.

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BY LUTHER CUMMINGS.

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In accordance with the request of the Secretary, as published in a circular letter, I have thrown together a few thoughts on one of the subjects, upon which information and practical experience is requested, and that subject is "grasses." In the county of Huntington, the Blue-grass, for which portions of Kentucky are so famous, is a native of the soil. No where in the county, where the soil is at all adapted to the cultivation of grasses, can you find a spot where it does not grow spontaneously. No woods, however dense, can be cleaned that does not show that Blue-grass germs in the soil, and the quality is not inferior to that of Kentucky grass. A gentleman of this county, who is a farmer and horse breeder, had occasion to visit Kentucky during the stock-sales at Lexington, some years since, and while there visited the farm of John M. Clay, Esq. He attracted the attention of Mr. Clay, with whom he had formed an acquaintance, by the remark that the grass in his orchard, at home, was about as thrifty as that in Mr. C's orchard. Mr. Clay expressed surprise and doubt when my Huntington county neighbor declared that he had cut an armful a few days before he left home. This gentleman also recollects that the illustrious Henry Clay was once questioned in regard to the practicability of introducing Blue-grass into the Wabash Valley. He replied that the grass already existing there, was indigenous to the soil, and equal to any grown. He remarked that it was a query



whether it had not been introduced into Kentucky from the Wabash valley. It is the boast of Kentucky stock-breeders that their horses and cattle are superior to any reared elsewhere on account of theirs being a limestone country with Blue-grass pasturage, and that these accessories had unquestionable influence in giving bone and stamina to breed animals. If this be true, and I have no reason to doubt it, the Wabash valley is certainly destined to be at no very distant day, a very superior stock-raising region. The gentleman whose observation and experience I add to my own, is Mr. John Roche, of the city of Huntington. Some winters ago he turned his brood mares into a field of this grass, and let them graze their living, having a shed in the field for shelter, and in the spring they appeared in good order and were as sleek as if they had had the best grooming.

The Blue-grass of the Wabash Valley has a favorable effect upon the soil, leaving it loose and mellow, which, as I have learned, is not the case with the same species of grass in Pennsylvania and Virginia. Wherever there is a friable clay and sandy loam, there it is the most luxuriant, and in heavy clay its growth is extremely precarious. It is so tenacious in the soil that it never dies out—bearing the closest pasturage, and defying all efforts at extirpation. It is an enemy to the lazy farmers' corn fields, requiring him to work them continually. The first crop grows to an average of three feet and the second to an average of fifteen inches; and in the most vigorous winters it remains comparatively green—a portion quite so. Singular as it may seem, the greater portion of the farmers of this county do not appreciate this species of herbage which is to be explained on the ground that they are not and have not been a stock raising class, and hence do not know its value for pasturing or for fertilizing. The farmers of the southern part of the county, in the region of the Salamony River, have, of late years, engaged extensively in cattle raising and are turning their fields into Blue-grass. The other grasses of the Wabash country, so far as my observation extends, are not different from what they are

elsewhere in the State, showing the same peculiarities and tendencies. The report of our County Assessor shows that there is an average annual product of seven thousand three hundred bushels of seeds. This exhibit, I am persuaded, is far too low.

In reference to "forest culture," I may say, that the misfortune with us is, that not sufficient attention has been paid to the subject. I confess with regret that our farmers heedlessly plunge into the destruction of the finest forests, seemingly indifferent or forgetful of future consequences. This is not the case with our farmers as a whole; many are prudently taking care of their timber, and there is no doubt their wise example will in time have a beneficial effect upon their neighbors.

# WHEAT CULTURE.

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BY ELISHA HOBBS.

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## *To the Annual Agricultural Convention :*

GENTLEMEN:—I herewith submit a few suggestions on wheat culture, as I deem it a subject of much interest ; it being one of the most important items connected with the husbandman's interest.

After many years of observation, and a reasonable amount of experience, I arrived at the following conclusions :

To first prepare the ground by deep plowing, about the last week in July or first week in August, this will give a sufficiency of time for the sod to rot before seed time. Do not stop breaking on account of dry weather. If one team is not enough, add another. After breaking, let it lay until seed time. Before drilling, harrow and roll your ground ; clear your wheat thoroughly, then drill it in carefully and do not stir the ground while wet after breaking. I would recommend drilling between the 5th and 15th of September. I have never succeeded very well in seeding in corn fields, except the corn has been cut up and the ground well broke before the wheat has been sown. When the stalks are allowed to remain on the ground with the wheat, the stalks are an impediment to its growth. I have rarely known more than a half crop, following a crop of corn.

Manure pays the best profit of any labor the farmer bestows on his wheat crop, yet many farmers let their manure go to waste rather than haul it out on their wheat ground.

Straw is now considered of much value by many of our wheat cultivators. Years ago many farmers allowed their straw ricks to rot, and many burned them up. Now in passing through the country, you see the straw ricks nicely topped off, and the straw well preserved, and cattle around them faring stumptuously, eating out the straw and at the same time obtaining for themselves good shelter. I consider the straw when cut in time, not allowed to be injured in the shock, and well stacked after threshing, of more value for cattle than timothy hay, and a very good substitute for hay for horses.

Two of the most successful wheat raisers in the vicinity of Monrovia, in Morgan county, break their ground early in August. Do not plow very deep, harrow and roll well; drill in their wheat between 10th and 15th of September. Have raised twenty-seven bushels to the acre, averaging about fifteen bushels per acre.

# Marketing and Preserving Perishable Products.

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BY C. C. KEELER, CINCINNATI, OHIO.

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[The following essay was prepared by request and read before the annual Agricultural Convention, January 6, 1875.]

The various methods of cultivating the varied products of agriculture have been so thoroughly and ably discussed by agricultural societies and in agricultural journals that no reasonable excuse can be found for the American farmer who is ignorant of the treatment required by his broad acres.

The most desirable methods of harvesting and storing cereals, root crops and other staple farm products, have also been widely published, and it is probable that there is little room for improvement in that direction.

There is, however, as is indicated by the experience of nearly every commission dealer in the principal markets of the country, a general lack of information in regard to the methods by which the more perishable products of the farm can be so marketed as to produce the best results. A painful illustration of the effect of this ignorance is given in the low prices that prevail at all shipping points during the harvesting of an abundant fruit crop; prices that often barely pay the expenses attending transportation and sale, and that leave little or nothing to remunerate those whose labors produced the luscious crop.

As the articles raised and sold by professional market gardeners are generally well handled, such will not be

included in these remarks, which are intended to apply only to such products as require to be transported for a considerable distance before a market can be found. The difference between the results of the proper and improper marketing of perishable products is so great that the subject deserves the careful attention of every farmer throughout the land. As it would be almost impossible to construct a series of rules that would be generally applicable to all varieties of fruit, etc., the principal articles included under the head of perishable products will be taken up in detail, and such specific directions given for packing and handling as are suggested by experience.

Summer apples for immediate use, may be packed either in barrels or in boxes containing either one bushel or one half bushel. It is desirable to pack in boxes only, when the crop is light and prices are high. The apples should be carefully picked by hand, all unsound, unsightly and defective fruit should be rejected. Each barrel or box should contain but one variety of fruit, and should be so closely packed that shaking and consequent bruising and decay will be prevented.

Winter apples should be carefully picked by hand before they become at all mellow, and as soon as the size and color of the fruit shows that it is marketable. The apples should be piled up in the orchard, covered with straw, and allowed to remain thus until they have gone through a process of sweating. In from two to three weeks the most defective portion of the fruit will have decayed, and the remaining portion will be in condition to pack.

Select good, clean barrels, place them upside down, remove the heads that are uppermost, and put in one layer of apples with the stem end down. Put another layer stem end down, on top of the first, and then pack in good, sound fruit, shaking the barrels occasionally so as to settle the apples closely together, until it reaches about two inches above the chime of each barrel; put on the heads, press them to their places with a lever or screw-press, re-set the hoops, reverse the barrels, and mark upon the heads that were

down, the variety of the apple and some brand to distinguish the first grade of quality and size from the second grade. Make at least two grades of size, etc., in packing every lot of apples.

The first two layers of faced fruit should fairly represent the average size and appearance of the entire contents of each barrel; no apple that is in the least degree bruised or decayed, or that shows evidence of decay, should be packed; each barrel should contain but one variety, and as nearly as possible but one size of apples, and every variety should be packed in at least two different grades, and be branded as such. It is especially important that the apples be so closely packed and pressed into the barrels as to be absolutely immovable until the barrels are opened; no injury results from the slight bruising of the apples nearest the heads of the barrels, the wood appearing to absorb enough moisture to prevent decay. Apples that are loosely packed are shaken and bruised every time the barrel is moved and become worthless in a very short time, and can only be sold at a much lower price than properly packed fruit.

When the branded head is removed from a well-packed barrel of apples, the fruit appears in two layers, stems upward, while the apples below the two upper layers are in an unbruised condition, not having moved from the position in which they were originally placed. Such fruit can be sold when trash can scarcely be given away. The brands of a careful and honest packer soon become known and sought after by buyers, and well known, reliable brands command prices from twenty-five to one hundred per cent. higher than those that are less favorably known.

The utmost care should be used in keeping out from each barrel all fruit that is not in size, soundness and appearance fully up to the average standard of the two upper layers, it being a very serious mistake to suppose that buyers will not notice a few small or imperfect apples. One rotten apple will affect the market value of an entire barrel, and a few undersized or unsightly specimens may afford a pretext

for a serious reduction in the price of an entire shipment. More money can be obtained from one hundred bushels of ordinary apples by rejecting twenty-five bushels of the poorest, and packing and marketing only seventy-five selected bushels than by sending the entire lot to market; while the expenses for packages, labor and transportation will be largely reduced.

Pears should be carefully picked by hand and packed in bushel or half bushel boxes. The fruit should be picked when hard, and as soon as it is well colored; each pear should be laid to its place in the box until the package is as full as it can be filled; the lid should then be pressed to its place and secured, the fruit being so tightly packed and pressed as to be immovable until the box is opened. If any pears have become soft, they should be packed by themselves in half bushel boxes, and sold for immediate consumption. Pick each variety and each grade or size by itself; use only new, fresh boxes for fine fruit, reserving old or stained packages for the lower grades; mark the variety and the packers name upon each box. Hard, green, unripe pears, may be packed in barrels, if boxes can not be readily obtained, but nearly all the barreled pears sent to market are profitably repacked by the middle men.

Peaches should be picked as soon as they are well colored and matured, but before they soften. They should be carefully graded as to variety, size and quality, and packed in bushel or half bushel boxes; each box should be packed so full and pressed so closely that the fruit will not be shaken about and bruised in transportation.

None but large, sound and handsome peaches should be marketed, as the lower grades scarcely pay the attendant expenses, except in seasons of unusual scarcity. More money can generally be realized by sending to market twenty-five bushels of carefully selected and well packed peaches, than by mixing with the choice fruit twenty-five bushels of common peaches and indiscriminately marketing the entire fifty bushels. Small, defective or soft peaches



had, generally, better be thrown away than marketed in a green condition.

Grapes should be picked as soon as they are well colored and before they soften. Trim the bunches by removing all defective, green, decayed or withered grapes, and pack in stands such as are used for berries. These stands contain either one or two bushels and are arranged in drawers, each containing one-half bushel or one peck. Grapes packed in such stands will resist mould or decay much longer than they would if packed in tight, unventilated card board or wooden boxes.

In order to properly pack grapes into the drawers of these stands, have a drawer made of tin just large enough to set inside of the wooden drawer. Lay the grapes into the tin drawers in such a way as to show the full length of the bunches, but with the stems turned upwards. When the drawer is apparently full place a board over it, turn the drawers on end and gently shake it so as to settle the grapes to one end of it, leaving a small vacant place at the other end. Fill this vacancy by putting in a few bunches of grapes, turn the wooden drawer upside down and place it over the tin drawer; then reverse both, remove the tin drawer, and set the wooden one to its place in the shipping stand. A drawer of grapes, thus well filled and properly packed, presents an attractive even surface of sound grapes, the ragged stems and unsightly ends of the bunches being downward and concealed.

Cherries should be picked before they are soft. They should be gathered by taking hold of and pulling the stem without pulling, pinching, or bruising the fruit, and the stem should invariably be left on each cherry. Cherries picked without stems are unsalable, for shipping purposes, as they invariably arrive at market in a bruised and decaying condition. A bushel of cherries, with the stems off, contains as much fruit as a bushel and one-half with the stems on; while a bushel of the latter will, for shipping purposes, bring twice as much and keep twice as long as a bushel of the former. Pack in berry stands and have each

drawer as full as it can be packed without bruising the fruit.

Strawberries should be picked before they become soft, and packed in stands, boxes being undesirable except for local retail trade. Pick with the stems on whenever it is possible, and shake each drawer gently so as to settle the berries to their places, and thus enable each stand to be packed so completely full that the fruit will not settle and shake in transportation. Keep the varieties separate and grade the sizes carefully. In packing strawberries and all kinds of small fruits into drawers, it is desirable to place a board on top of the drawer when it is apparently full, to set the drawer on end and shake it gently so as to settle the fruit to one end of the drawer, and then to lay the drawer flat, remove the board, and pack in fruit to fill any vacant spot resulting from settling.

Raspberries should be packed in the same manner as strawberries. Red raspberries, being generally sold in smaller quantities than other varieties, should be packed in one bushel stands. The berries should be carefully graded, soft or especially ripe fruit being packed separately, and each drawer should be absolutely full.

Currants should be picked with more care than any other product. The stems should be pinched from the bushes without pulling or bruising any of the fruit. Pick when the fruit is ripe and well colored, and pack closely into stands without pressing or bruising. Currants are so easily bruised and damaged that those properly picked and packed will bring two dollars per bushel more than those that are carelessly picked, hastily thrown into drawers, and shaken about in transportation.

Plums should be carefully picked, and packed in berry stands or in peach boxes; the finer grades in the former, and the lower qualities in the latter. Plums sent to market in barrels are generally repacked into stands or boxes, at a profit to the repacker, of from fifty to one hundred per cent.

Quinces should be carefully picked and graded, the finer qualities tightly packed in boxes, and the lower qualities packed and pressed into barrels.

At the risk of repetition, the shipper is recommended to carefully assort his products at the time of packing; to reject all small, soft, bruised or defective fruit; to pack tightly; to have every package as full as it can be filled without crushing the fruit; to use only clean and neat packages; to pack each variety and quality separately, and to have the contents of every package as nearly uniform in size, etc., as possible.

It is evident that the plan recommended involves the rejection of a large per centage of the fruits that would be sent to market under the old system of marketing. This rejected portion of the crop, and also such a portion of the most desirable fruits as can not, in seasons of unusual abundance, be profitably sold in a green state, should be preserved and placed in such an imperishable condition that it can be held until the temporary pressure upon the market is relieved, and until they can be sold at remunerative prices. Small and unsightly fruits, especially, should be preserved and made so attractive in appearance that they can be readily and profitably sold after the choicer grades have been consumed.

The means of preservation most generally known are the processes of pickling, canning, drying and evaporation.

The pickling process is adapted to the preservation of so few articles, the expense of the necessary glass packages, etc., is so great, and the demand for the product is so well supplied by the pickling establishments now in operation, that it will, probably, never especially commend itself to the attention of the majority of agriculturists.

The canning process involves so large an outlay for the necessary buildings and apparatus, and the prosecution of the business, requires so large a capital that it can never be profitably managed except by wealthy firms or associations. In addition to these objections to the general introduction of the canning process, commercially, the profits upon canned goods have been largely reduced by competition among the manufacturers, while the products are annually becoming more and more unsatisfactory to consumers. In

many of the canned commodities now sold, the expense of the packages, labels, etc., vastly exceeds the value of the canned fruit or vegetables. A package containing a dozen cans of tomatoes sells for about two dollars, and contains tomatoes costing only twenty cents, one dollar and eighty cents of the purchase price being for the tin cans, the labels, the wooden box, etc., all of which are useless to the consumer.

The drying process is so well known as to require but little description. The primitive method of drying in the open air is uncertain and unsatisfactory; it involves the exposure of the fruits, for several days, to the unwholesome and disgusting deposits of insects, and the products invariably contain countless eggs that are either eaten by the consumer or that soon germinate with destructive effects. The leathery, indigestible and worm eaten abominations sold as dried apples are universally rejected by all who are able to obtain more cleanly and palatable fruits.

There are very many styles of drying machines of varying degrees of merit, most of which produce cleanly fruits, although they are frequently burned or scorched, and are always sorry substitutes for fresh fruits. The great objection to commercial fruit or vegetable drying is, "it does not pay." The average market price of dried apples to the producer does not exceed five cents per pound. As a bushel of green apples produces from five to six pounds of dried apples, the producer receives twenty-five or thirty cents for his bushel of apples and his labor. Peach drying is equally unprofitable.

The evaporating process was invented by Charles Alden, Esq., and has been commercially prosecuted in the West for the last four years. The Alden process of pneumatic evaporation consists in exposing fruits and vegetables to the action of currents of rarified moist air.

The fruits, etc., to be treated are placed upon racks covered with netting. These racks are then, at intervals of two or more minutes, varying with the articles treated, placed in a close, dark chamber where they are moved

upwards in the same direction as ascending currents of heated air. These air currents are constantly fed by fresh supplies of moisture taken from the cut surfaces of the fruits. Upon these racks the fruits advances steadily from a warm, dry atmosphere into air constantly becoming more damp and less warm. The effect of this decreasing heat and increasing humidity is to keep the surfaces of the articles treated moist, to open their minute pores and to keep them so until the water, which enters so largely into the composition of everything having vegetable life, and which is the principal element of decay, has been removed, and has passed off in the form of vapor.

The evaporating process occupies about two hours, for apples, at the end of which time the products are ready for consumption, and are, practically, exempt from decay; they require no further treatment, nor any especial style of packing or package, being generally placed in ordinary barrels or boxes. None of the delicate flavors of the articles treated are affected by the process, and no injurious chemical change takes place, the only transformation being a beneficial one—increasing the saccharine properties and correspondingly diminishing the starch.

Evaporation results in simply removing the water from the articles treated; this water can at any time be restored, when the fruits, etc., become, for cooking purposes, practically identical with corresponding fresh green products. The prices of evaporated fruits are from one hundred to four hundred per cent. higher than the prices of corresponding dried fruits, and the demand for the evaporated products is far in advance of the supply; this vast difference in price represents the superior cleanliness and qualities of the Alden fruits.

Evaporated products are greatly diminished in bulk; fifteen pounds of evaporated apples contain all the edible portion of a barrel of green apples; three pounds of evaporated tomatoes contain all the edible portion of a bushel of fresh tomatoes; seventy-five pounds of evaporated sweet-corn contain all the edible portion of one thousand ears of

green corn, and one hundred and sixty pounds of evaporated pumpkins contain all the edible portion of one ton of fresh pumpkins.

The immense saving in storage and transportation that would result from the general introduction of the evaporating process must be equally apparent with the advantages of being able to utilize the whole of the perishable crop, and to rapidly and economically place the apparent surplus of a bountiful harvest into such a concentrated and imperishable condition that it can be cheaply stored until it is demanded at remunerative prices.

# A HISTORY OF THE DEVELOPMENT OF THE MANUFACTURING AND AGRICULTURAL RESOURCES OF INDIANA.

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BY HENRY C. GUFFIN.

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*Mr. President and Gentlemen of the Exchange.\**

So far as the record goes, the history of the development of the manufacturing and agricultural resources of the State, begins with the passage of an act, by the Legislature, approved February 6, 1837. It was entitled "An act to provide for a Geological Survey of Indiana." In pursuance of the act, Dr. David Dale Owen was appointed State Geologist. He made a report, published in two parts, in the years 1837 and 1838, under the title of a "Geological Reconnoissance of the State of Indiana." Near the close of his report he makes use of the following language:

"Looking to the sources of wealth, and the stimulants to industry which lie buried in the strata of our coal formation, we may confidently anticipate that our young and growing State will not only continue to rival her sister States as an agricultural people, but that she will also, ere long, be able to enjoy an equal share in all their commercial and manufacturing advantages."

He concludes his report with a recommendation for a minute topographical and geological survey.

And then the subject slept for eleven years! It was

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\*NOTE.—Read before the Manufacturers and Real Estate Exchange, June 23, 1874.

revived again in 1849 by no less a personage than Governor Joseph A. Wright, in his inaugural address, delivered on the 5th day of December, of that year. He used the following language :

“A thorough geological examination of our State is alike demanded by the interests of agriculture, manufactures and commerce. We learn from the hurried and incomplete reconnoissance made by Dr. David Dale Owen, many years since, that we are rich in mineral as well as agricultural resources, that about seven thousand square miles of the “Illinois coal field” are embraced within the limits of Indiana. It is to be regretted that he was not permitted to complete his survey which promised such rich results. That we have coal, iron, and other minerals in abundance is already well known, for we have enterprises in different parts of the State laying hold of these elements of power and wealth. A full and practical report from an able and scientific source would disclose fully our vast agricultural and manufacturing resources, and would doubtless facilitate the companies of the State in procuring aid to carry on the work they are so energetically pressing forward. I can not forbear to say that it would gratify me to see this subject attracting your early and favorable attention.”

In his annual Message, delivered on the 31st day of December, 1850, he used the following language :

“Your attention is again earnestly invited to the importance of providing for a thorough geological and topographical survey of the State. The interests of agriculture, manufactures and commerce alike demand it.

That Indiana is rich in mineral wealth is a fact that each succeeding year more and more demonstrates. Her position on the map of this great valley is commanding, and if, under a kind Providence, we escape the perils that threaten to separate us from the great sisterhood of States whose interests are so blended by geological, geographical and commercial affinities, the next ten years will place her as an agricultural and a manufacturing State by the side of Pennsylvania. \* \* Our strength and our independence lie in our great agricultural and manufacturing resources.



We want more knowledge—we want a map which will not only define our boundaries, our area, our corporate subdivisions, and the course of our rivers; but we want a map which shall tell us the depth of our coal seams, the best location for our iron furnaces, the extent and value of our marble and stone quarries, the worth of our exhaustless quantities of timber, and the true character of our soils.

I submit to you whether if we regard the measure in the light of mere revenue alone it is not worthy of your deliberate and favorable consideration.

And while looking at the cost of the work you will not fail to see that in a few years it would bring such an increase of population and capital as would reduce the general burthens of the people four fold the amount of the expenditure.”

But they did not see it and failed to make any appropriation.

In the same message a recommendation was made for the establishment of a State Board of Agriculture, which was acted upon by the Legislature. A State Board was organized with Gov. Wright as its President, and the first State Fair held in this city in the month of October, 1852. In 1852 an effort was again made to have the Legislature make provision for a geological and topographical map of the State. On the 22d day of January of that year, Dr. Ryland T. Brown delivered an address before the Legislature upon that subject. In the course of his remarks he said:

“Indiana occupies a position nearly central in the great geological basin of the Mississippi valley.” Again, “The western margin of the mountain limestone brings us to the coal measures—the eastern verge of the great Illinois coal field. The boundaries of this immense coal deposit have not as yet been clearly defined. Its present ascertained length is about six hundred miles, and its greatest width two hundred, and its estimated area about eighty thousand square miles, embracing portions of Kentucky, Indiana, Illinois, and, perhaps, Minnesota. Of this great field about

eight thousand square miles are in Indiana. Of the number and thickness of the coal seams in our State, but little is known beyond a few points on the Ohio and Wabash rivers, where coal has been mined. And yet we have no hesitancy in pronouncing this coal next to her fertile soil *the great element of wealth to Indiana.*"

Again, "Associated with the coal are deposits of iron ore of two or three varieties. I have but little doubt that if all the facts in relation to iron ore in Indiana were carefully ascertained by a competent mineralogist and published in a reliable form by the authority of the State, that we would, in a few years, manufacture all the iron consumed in the State, and probably furnish it as an article of commerce."

He then enters into an argument, in detail, showing the practicability, the necessity, and the advantage of bringing these two great arms of productive industry, viz: The manufacturing and agricultural interests into the closest practical proximity, showing also the folly of looking abroad for everything beyond the mere growth of the soil, illustrating how our citizens sold their *bonds* at a ruinous discount in a foreign market and bought iron rails made of *sixteen per cent. ores* in the mountains of Wales, ferried them across the Atlantic, transported them a thousand miles to the interior and laid them on a track *cut through forty per cent. ores*, and closes with this striking language:

"This wretched, this insane policy must be abandoned. The manufacturer must be invited to our Western coal fields that we may feed him with the surplus products of our fertile soil and, in turn, consume his fabrics without this enormous transportation tax."

Referring to the *fact* that it would cost something to make a thorough geological survey of the State, he said: "I speak what I know when I say that our neglect of this matter is operating seriously to our disadvantage abroad. A few months ago I was among the manufacturers of the Eastern States. I spoke of our great manufacturing resources. The reply was: "They can not be of much value as your State

refused last winter to make a survey that we might be officially informed on these subjects." We hope, gentlemen, you will place this matter right before the public and Indiana right before the world. We must move in this matter if we do not intend to be entirely behind the age.

Ohio has already completed a survey of her territory. Kentucky, Illinois and Michigan have each an efficient corps in the field, and shall not Indiana give to the world a true and full statement of her resources?

They answered the Doctor in the negative. It must have been because they hadn't time to pass the bill. They were very busy. They had to pass all sorts of regulations concerning the negro. They had to protect a good many white people from marrying negroes. And as they didn't need any labor in the State, if it was *colored*: they had to make regulations to shut out all of that kind of labor, and to take steps to put out all that had unfortunately got in, and they didn't have time to consider the schemes proposed by the *white* people.

So the year 1853 came and went. Not, however, without a great deal of hopeful talk, and hard work in the interest of agriculture. By this time a great many counties and districts, availing themselves of the privileges of an act entitled "An act for the encouragement of agriculture," (approved February 17, 1852,) had organized societies and very many of them "blew in," (as the miners say,) with an address. The published transactions of that year are most interesting and valuable. They contain among other matters, an address by the Hon. Daniel Mace, an address by Dr. E. H. W. Ellis, two essays by Dr. Brown, one on "Swamp Lands," the other "On the best method of improving the soil." One by Hon. S. B. Gookins, "On the Culture of Rural Taste." An address by Dr. A. C. Stevenson. Also, one by Hon. John Dumont; one by Jonathan W. Gordon Esq.; one by Gov. Wright, and last but not least, an address at the State Fair at LaFayette by the great and good Horace Greeley.

But the Legislature, still refusing to pay any attention to

the matter, the State Board of Agriculture took it in hand and in the minutes of the meeting of the Executive Committee, January 7, 1854, I find this entry: "On motion of Gov. Wright, Dr. R. T. Brown was employed to prosecute a partial geological examination of the State, at a salary of \$500 per year."

The Doctor made that examination and reported it. You will find his report in the transactions of the Indiana Agricultural Society for the year 1853, at page two hundred and ninety-nine to the close.

In speaking of that report, Governor Wright, in his message of 1855, says: "In that report, which has been placed on your tables, you will find much valuable information on the subject of our undeveloped agricultural and manufacturing resources." In further discussion of the subject he says: "With a coal field of seven thousand square miles in extent, with inexhaustible beds of iron ore, with a soil of unfailing fertility, with a central position between the East and West, and with railroads traversing the State in all directions, Indiana, if true to her own interests, may, within the course of the next ten years, double the present amount of her wealth and population. If we desire to bring into our State a portion of the now hoarded capital of Europe and the East, we must be able to point with certainty to the places at which it can be profitably invested. To enable us to do this, we want reliable facts, such as the actual investigation of scientific men only can furnish. The expenditure of a few thousand dollars, if authorized by the Legislature, will secure to us the advantages of a thorough geological and topographical survey of the State."

You will tell me, "(Of course they made the appropriation." Why no, they didn't. They spent the session in resolutions requiring the agent of the Indiana Colonization Society to furnish them a statement of the operations of his agency; in resolutions appointing a clerk for the Committee on Education; in discussing the question whether George H. Chapman or George McDowell should represent the counties

of Huntington and Wells in the Senate; in voting themselves and each other leaves of absence and other matters of less importance; drew their mileage and per diem and went home—leaving this great subject untouched.

In 1856, Dr. Brown prepared his exhaustive and unanswerable article on "The Manufacturing Capabilities of the Indiana Coal Field." It is published in the Indiana Agricultural Reports of that year. In the same report I find only three other essays from Dr. Brown. I didn't look very close. There may be others. There are also essays and addresses from various persons—two essays by Ignatius Brown, Esq., one "On Corn," the other "On Ditching and Draining." An address by Hon. Oliver H. Smith, and a communication from him on "The Railroads of Indiana," and a communication from Hon. Hamilton Smith on "Coal Mining in Indiana."

And then, in 1857, the good Governor, determined not to be outdone, and recurring to the subject with a certainty only equalled by that of death and taxes, speaks of it in this fashion:

"Having on several former occasions urged upon the Legislature the duty of providing for a thorough scientific survey of the geological character of the State, I regret that my recommendations upon a subject of such vital importance to the prosperity of the people have failed to convince the proper authority of the propriety of making the necessary provision for such a survey. I therefore earnestly renew the recommendation."

But it ended just there. Governor Wright, having served both State and nation with credit, has gone to his honored grave, but the logic of events has vindicated the wisdom of his views, and demonstrated the value of his suggestions. And this people, now in the partial possession of the great blessings which he foresaw and predicted, and whom he would have crowned with these blessings, but could not, by reason of this absolute and unrelieved and unmitigated and impenetrable ignorance and indifference and folly, owe him a debt of gratitude for his labors in this behalf. As for his

associate and co-laborer, Dr. Brown, it is a matter of congratulation that he has been spared to see the beginning of that wonderful growth which he predicted and labored to attain, and it is left us to hope that he may be long preserved in our midst, in the fullness of his years, and the ripeness of his powers, to hasten and to witness the still greater growth that remains for our future.

In the early part of Governor Willard's term, you will find among the standing committees one "On Manufactures," but there is no record of their ever having done anything, and I think it fair to infer that the committee was simply for ornament, and not at all for use.

It is but just, however, to say, that on the 5th day of March, 1859, the Legislature did make an appropriation of \$5,000, to be expended by the State Board of Agriculture in making a partial survey, and that Dr. David Dale Owen being appointed to the work and dying soon after, it was completed by his assistant and brother Richard, and Lieutenant Governor Hammond, in his address to the Legislature, on the 9th day of January, 1861, used the following language :

"Our lamented man of science, of world wide reputation, and an ornament to our State, our late State Geologist, Dr. David Dale Owen, is lost to science and to us by death, and it will be indeed hard to fill the void thus occasioned. As, however, he was occupied, previously to the call made on him by our State Board, in the survey of Kentucky and Arkansas, he had not personally taken the field. The work has hitherto been conducted and reported upon by his brother, Dr. Richard Owen, whose report is herewith submitted to you, with the necessary diagrams, tables of analysis, etc., connected therewith."

This report was published under the authority of the Indiana Legislature. Then came the war, and the subject dropped out of public attention.

To be sure Governor Morton, with all the mighty burdens of that war upon him, found time and place for the following remarks in his message of 1863:

"The mineral resources of Indiana are but imperfectly understood. Nearly one-fourth of the whole area of the State is a coal field, a large part of which is of the finest quality. Excellent iron ore is found in vast quantities in many counties, and although but little worked as yet, will be the source of great wealth and prosperity in the future. Throughout the State, except in a few small localities, the soil is rich and fertile, capable of producing all the grains and grasses in the greatest abundance. The State abounds in fine timber and living streams of water, and in every respect presents the facilities for an easy and profitable agriculture, while an abundance of coal and water power furnishes the means for manufacturing on the largest scale and cheapest terms."

He followed this up in 1865, and again in 1867, recommending the establishment of a Bureau of Emigration, but nothing ever came of it.

In 1868, Dr. Brown, then Professor of Natural Sciences in the Northwestern Christian University, at the request of Lieutenant Governor Baker, acting Governor, compiled a statement entitled "Indiana and her Resources," in which he sets forth in the clearest, most definite and satisfactory manner, the position, climate, soil, timber, water power, building material, consisting of clay and the various qualities of stone, their location and character, the coal, iron and manufacturing facilities of the State, ten thousand copies of which were distributed throughout Pennsylvania and the Eastern States.

In March, 1870, Dr. Brown contributed to the *Indianapolis Daily Journal* a series of singularly valuable articles, seven in number, on what was termed "The Indiana Coal Field," treating it with a fullness and accuracy of knowledge born only of years of enthusiastic and intimate study of a subject.

I ought to have said further back, that the Indiana Agricultural Reports for 1854-5 contain minutes of the proceedings of the State Fair, the various county and district fairs and much valuable literature on agricultural subjects.

As usual Dr. Brown comes in for three essays. One "On Grasses," one "On the Dairy," and one on "The Soil of Indiana."

Among other contributors are C. W. Walker, Ignatius Brown and R. J. Gatling of Marion county, Wilbur F. Stone of Putnam, Oliver Albertson of Washington, John A. Burbank of Wayne, Lewis Bollman of Monroe, Judge Cotton of Dearbon, Dewitt Chipman of Hamilton, W. W. Curry of Hendricks, W. M. Franklin of Owen, S. S. Harding of Ripley, James Harland of Vanderburg, A. W. Lemon of Fayette, I. D. G. Nelson of Allen, Dr. A. C. Stevenson of Putnam, Dr. Haymond of Franklin, Thomas N. Stillwell of Madison, Judge Stewart of Cass, and Judge Samuel E. Perkins of Marion. It presses yet to be said that the State Board of Agriculture, and the various county and district societies have held their meetings from year to year, and by their exhibitions and premiums, essays and addresses, discussions and publications have disseminated ideas, engendered enthusiasm, and interest, and increased their influence and power till their exhibitions for the last six years have been uniformly and eminently successful, and their efforts culminated last year in the Indiana State Fair and Exposition, which though not so successful as the Crystal Palace Exhibition in London in 1851, or the similar exhibition in New York in 1853, or in Paris in 1867, was nevertheless, the very respectable beginning of what is yet to become a great institution.

To the great praise of the Board it must always be mentioned that they were chiefly instrumental in procuring the geological survey of the State. The Hon. A. D. Hamrick called especial attention to the matter in his address as President, to the members of the Board in the years 1868-9. Gov. Baker went personally before the Board and urged the matter in 1869, and in his message of that year said:

"If we desire to compete with other States in attracting capital and inviting immigration, some means must be used to make known what we have already accomplished, and the



vast resources of our State, which still remain to be developed. As a means to this end a thorough and scientific geological survey of the State would seem to be a necessity. Such a survey has been repeatedly recommended by my predecessors and I now repeat the recommendation, feeling assured that parsimony in this respect is the very reverse of true economy.

On the 7th day of March, 1869, the Legislature passed an act providing for a Department of Geology and Natural Science, in connection with the State Board of Agriculture, and on the 22d day of March, Governor Baker appointed Professor Edward T. Cox to the office of State Geologist. He entered at once upon his duties, and the results of his labors are known.

It would be interesting to trace him through every step of his progress; his moving from his home in New Harmony to this city, and bringing with him his private collection of geological specimens, and his assortment of chemical apparatus and re-agents; to see him gathering what few geological specimens we had out of the State House cellar and arranging them for display; to hear him beg for an appropriation for rooms in which to establish a laboratory; to tramp with him over every county where he has made a survey; to stand by him as he has made his analysis of coal, iron and clay; to see him inaugurate and arrange the excursion to Clay county; to go with him through his various maps and reports; but I forbear. He has met with so much sympathy and encouragement and success; his name has been so constantly conspicuous and honorably before the public, that I think I may assume that you have made yourselves thoroughly familiar with his labors. I have chosen rather to recall and emphasize the names of those, who in years gone by, laboring for this cause through storm and darkness, without money and without price, were rewarded only with indifference, contempt and failure.

As for us, surrounded as we are with the light and knowledge of this hour; thirty-seven years after David Dale Owen's Reconnoissance; twenty-five years after Governor

Wright's first recommendations of a survey ; twenty-two years after Dr. Brown's address to the Legislature, and twenty years after his report ; fifteen years after Richard Owen's report ; after these facts have been affirmed and illustrated from every chair of natural science in the State ; discussed at the meetings of the State Board of Agriculture, at county fairs, in country school houses, in all manner of means and by all classes of people, getting even into the county papers, and being occasionally mentioned in the Legislature ; and, what is more to the point, fifteen years after John M. Lord and John Thomas, then controlling "The Indianapolis Rolling Mill," made their first experiment in the use of block coal in their furnaces, and demonstrated its complete adaptation to the rolling mill.

Eleven years after, these same gentlemen conceived and executed the idea of using the block coal in the puddling furnaces for the conversion of pig iron into bars. Seven years after they commenced the construction of the Planet furnace—the pioneer furnace of our great Indiana smelting enterprise—thus staking their money on their faith in the value of raw block coal in smelting iron, and having their faith answered with the most complete and triumphant success.

Let us not take to ourselves too great credit for wisdom and courage when we venture to affirm the proposition "that Indiana is a great manufacturing State." On the contrary, having our faith thus renewed, if there be any left to whom the knowledge of these great things has not yet come, or who are still skeptical in regard to them, we may point them to the sources of information from which they will learn that the greatest and best of our history have known them all along. And classing the folly which overlooked them, with the old internal improvement folly of 1837, and the still greater folly of the failure to pay the interest on the public debt, thus ruining the financial character of the State abroad, and retarding her growth in wealth and population, we may be able to show them that

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we are a quarter of a century behind where we ought to be, and that studying the mistakes of our predecessors we may profit by their example and turn their defeat into victory; that with higher ideas, greater energies, wiser policies, and better *men* controlling our course in the future, we may regain what we have lost and thus give our beloved commonwealth her proper place in this great sisterhood of States.

CONSTITUTION  
OF THE  
INDIANA STATE BOARD OF AGRICULTURE,  
REVISED AND ADOPTED AT THE  
JANUARY MEETING OF THE BOARD, 1860.

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ARTICLE 1. The name and style of this society shall be "The Indiana State Board of Agriculture;" its objects, to promote and improve the condition of agriculture, horticulture, and the mechanic, manufacturing, and household arts.

ART. 2. There shall be held at the city of Indianapolis, at such time as may be prescribed by law, an annual meeting of the State Board of Agriculture, together with Presidents, or other delegates duly authorized, from each county, or such other agricultural society as may be authorized by law to send delegates, who shall, for the time being, be *ex-officio* members of the State Board of Agriculture, for the purpose of deliberation and consultation as to the wants prospects and condition of the agricultural interests throughout the State; and at such annual meetings the several reports from county societies shall be delivered to the President of the State Board of Agriculture; and the said President and delegates shall, at this meeting, elect suitable persons to fill all vacancies in this Board; *Provided, however,* That said election shall not affect the members of the Board present, whose term shall not be considered to expire until the last day of the session.

ART. 3. The State Board elect shall meet immediately after the adjournment of the State Board, for the purpose of organization, and for the transaction of such other business as the wants and interests of the society may require; and hold such other meetings, from time to time, for making out premium lists, preparing for State fairs, and all other business necessary to the promotion of the objects of the society.

ART. 4. The State Board elect shall consist of sixteen members, chosen from the following districts:

1st District—Posey, Vanderburg, Gibson, Warrick and Spencer counties.

2d District—Pike, Dubois, Martin, Daviess, Knox and Sullivan counties.

3d District—Perry, Crawford, Harrison, Floyd and Washington counties.

4th District—Orange, Lawrence, Jackson, Monroe, Green, Brown and Scott counties.

5th District—Clark, Jefferson, Switzerland, Jennings, Ohio and Ripley counties.

6th District—Dearborn, Franklin, Decatur, Bartholomew and Rush counties.

7th District—Johnson, Shelby, Morgan and Marion counties.

8th District—Owen, Clay, Vigo, Parke and Vermillion counties.

9th District—Putnam, Hendricks, Montgomery and Boone counties.

10th District—Fayette, Wayne, Union and Henry counties.

11th District—Randolph, Delaware, Madison, Hancock, Hamilton, Tipton and Jay counties.

12th District—Clinton, Fountain, Tippecanoe, Warren, Benton and White counties.

13th District—Blackford, Grant, Huntington, Wells, Adams, Wabash and Howard counties.

14th District—Carroll, Cass, Miami, Fulton, Pulaski, Jasper, Porter and Lake counties.

15th District—Marshall, Laporte, St. Joseph, Starke and Elkhart counties.

16th District—Allen, Lagrange, Whitley, Dekalb, Noble, Steuben and Kosciusko counties.

Chosen for two years, one-half of whose terms expire every year, to-wit: those representing the first, second, third, fourth, seventh, fourteenth, fifteenth, and sixteenth, expire at the annual meeting of 1860, and those representing the fifth, sixth, eighth, ninth, tenth, eleventh, twelfth, and thirteenth districts, expire at the annual meeting to be held in January, 1861. To be chosen by ballot.

ART. 5. It shall be the duty of the President to preside at all meetings, conduct the business in an orderly and parliamentary manner, and officially sign all vouchers and drafts upon the Treasurer, (except for premiums,) and all other instruments requiring the same, and call special meetings in cases of emergency.

ART. 6. The State Board elect shall, at the annual meeting after the adjournment of the delegate meeting, proceed to elect one of their number President, who shall hold his office for the term of one year and until his successor is elected and qualified, and one of their number for Vice-President, whose term shall be the same as President, who shall act, and, for the time being, have all the power as President, whenever the President is absent from any regular meeting. They shall also elect some suitable person as Secretary, and some suitable person as Treasurer, and a General Superintendent, who shall hold their offices each for

one year, unless removed for incompetency or neglect of duty. They shall also elect four of their number, who shall, with the President, constitute an Executive Committee, who shall have power to act in cases of emergency where loss would result by waiting till a regular meeting of the Board, but shall have no power whatever during the meeting of the Board.

ART. 7. It shall be the duty of the Treasurer to safely keep the funds belonging to the society, pay out the same on orders or drafts drawn by the Secretary, and report annually to the State Board, and as much oftener as he may be called upon by the Board, and shall give bond for the faithful performance of his duties.

ART. 8. It shall be the duty of the General Superintendent to take care of, and carefully keep, all property belonging to the society, have the care and control of the fair-grounds during the recess; have the supervision and oversight of such improvements or additions as may be directed by the State Board, and, under their direction, procure materials, contract for labor, employ the necessary police, gate-keepers, and care-takers generally, and shall be, during the continuance of a fair, the Chief Marshal and head of the Police.

ART. 9. The Secretary shall keep a true record of the proceedings. He shall conduct all correspondence on behalf of the Society, except when otherwise directed by the President. He shall, by himself and assistants by him appointed, arrange the details of the entries, tickets, and enroll the names of committees and judges of the State Fair, receive and record the various reports of the awarding committees, fill out and deliver all diplomas and certificates. It shall be the duty of the Secretary to condense the County Agricultural Reports for each year into one volume, and superintend the publishing of the same. He shall audit and file all accounts against the Board; draw orders in favor of the proper persons, on the Treasurer for the amount; but orders

shall not be drawn payable to order or bearer, but to the name of the party alone or his agent. He shall make an annual report, showing the amount of all orders upon the Treasury, and shall perform such other duties as the best interests of the Society may demand; but he is at all times subject to the direction and control of the State Board.

ART. 10. The Treasurer, Secretary, and Superintendent shall be allowed from time to time, such compensation for their services as may be judged equivalent to the duties performed, or services rendered, and shall be allowed such assistants as may be directed by the State Board. The compensation of all officers or employes shall be fixed by the State Board, at a regular meeting thereof.

ART. 11. That no compensation shall be allowed to delegates attending the annual meeting of the State Board; nor shall the members of the State Board elect be paid any sum of money, as compensation or otherwise, except by order of the Board elect.

ART. 12. The State Board may adjourn from time to time, or they may be called together by the Secretary, by order of the President, by a written notice to each member, enclosed by mail, and a notice of such meeting published in two or more newspapers of general circulation, in the city of Indianapolis; and all meetings so held by adjournment, or calls, shall be deemed regular and legal.

ART. 13. Any alteration or amendment to this Constitution may be made at the annual meeting of the State Board, two-thirds of all the members voting for such amendment.

ART. 14. The following standing committees shall be appointed by the President, to whom all matters of business coming up for reference under their particular heads, shall be referred, unless otherwise specially directed by the Board:



- 1—Finance and Claims.
- 2—Rules and Regulations.
- 3—Fair Grounds.
- 4—Unfinished Business.
- 5—Geological Survey—Executive Committee *ex officio*.
- 6—Premium List.

(AN ACT FOR THE ENCOURAGEMENT OF AGRICULTURE.)

Approved February 17, 1852.

SECTION 1. *Be it enacted by the General Assembly of the State of Indiana*, That whenever thirty or more persons, residents of any county or district, embracing two counties of this State, shall organize themselves into a society for the improvement of Agriculture within said county or district, and shall have adopted a constitution and by-laws agreeably to the rules and regulations to be furnished by the Indiana State Board of Agriculture, and shall have appointed the usual and proper officers, and when said society shall have raised and paid to their Treasurer by voluntary subscription or by fees imposed upon its members, any sum of money not less than fifty dollars; and, when the President of said society shall certify to the respective County Auditors the amount thus paid, attested by the oath or affirmation of the Treasurer before a magistrate, it shall be the duty of said County Auditors, embraced within the district in which such society shall be organized, to draw an order on the Treasurer of his respective county, in favor of the President and Treasurer of said society, for whatever amount of funds there shall have been received during the previous year, for all licenses issued to persons exhibiting menageries, circuses, or theatrical performances, or other shows: *Provided* said order shall not exceed the amount raised and paid in by said society by voluntary subscriptions or fees, and it shall be the duty of the Treasurer of said county to pay the same.

SEC. 2. That it shall be the duty of the several county or district societies which may be formed under the provisions of the preceding section, during the continuance of this act, annually to offer and award premiums for the improvement of soils, tillage, crops, manures, improvements, stock, articles of domestic industry, and such other articles, productions and improvements, as they may deem proper, and may perform all such acts as they may deem best calculated to promote agricultural and household manufacturing interests of the district, and of the State; and it shall also be their duty so to regulate the amount of premiums and the different grades of the same, as that it shall be competent for small as well as large farmers to have an opportunity to compete therefor, and in making their awards, special reference shall be had to the profits which may accrue, or be likely to accrue, from the improved mode of raising the crop, or of improving the soil or stock, or of the fabrication of the articles thus offered, with the intention that the premiums shall be given for the most economical mode of improvement; and all persons offering to compete for premiums on improved modes of tillage or the production of any crop or other articles, shall be required, before such premium is adjudged, to deliver to the awarding committee a full and correct statement of the process of such mode of tillage or production, and the expense and value of the same, with a view of showing accurately, the profits derived, or expected to be derived therefrom.

SEC. 3. It shall be the duty of each county or district society, to publish annually a list of the awards, and an abstract of the Treasurer's account, in a newspaper of the district, and to make a report of their proceedings during the year, and a synopsis of the awards for improvements in agriculture and household manufactures, together with an abstract of the several descriptions of those improvements, and also make a report of the condition of agriculture in their county or district, which report shall be made out in accordance with the rules and regulations of the Indiana

State Board of Agriculture, and shall be forwarded to the State Board at their annual meeting in January of each year, and no subsequent payment shall be made from the county treasury unless a certificate is presented to the Auditor from the Secretary of the State Board, showing that such reports have been made.

SEC. 4. The State Board, as at present constituted and organized, is hereby created a body corporate, with perpetual succession, in manner hereafter described, under the name and style of the "Indiana State Board of Agriculture."

SEC. 5. It shall be the duty of the State Board to appoint a President, Secretary, Treasurer, and such other officers as they may deem necessary. The President shall have power to call meetings of the Board whenever he may deem it expedient.

SEC. 6. There shall be held in the city of Indianapolis, on the first Thursday after the first Monday in January, an annual meeting of the Indiana State Board of Agriculture, together with the President of each county agricultural society, or other delegate therefrom, duly authorized, who shall, for the time being, be *ex officio* members of the State Board of Agriculture, for the purpose of deliberation and consultation as to the wants, prospects and condition of the agricultural interests throughout the State; and at such annual meeting, the several reports of the county societies shall be delivered to the President of the Indiana State Board of Agriculture, and the said President and delegates shall, at this meeting elect suitable persons to fill all vacancies in said Board: *Provided, however,* That said election shall not affect the members of the Board present, whose term shall not be considered to expire until the last day of said session.

SEC. 7. It shall be the duty of said Board to make an annual report to the General Assembly of the State of the receipts and expenditures of the Board, together with such

proceedings of the State Board, and reports from county agricultural societies, as well as a general view of the condition of agriculture throughout the State, accompanied by such recommendations as they may deem interesting and useful.

SEC. 8. That the Indiana State Board of Agriculture shall have power to hold State Fairs at such times and places as they may deem proper and expedient, and having the entire control of the same, fixing the amount of the various premiums offered, embracing every article of science and art, or such portions of them as they may deem expedient and proper, calculated to advance the interests of the people of the State. They may employ assistants, receive contributions, donations, etc., and unite with a county or district society for the purpose of defraying the expenses of said State fairs.

SEC. 9. The State Board of Agriculture shall certify to the Auditor of State, the ordinary expenses of the Board proper, including the necessary personal expenses of their attendance on not more than two meetings in any one year. The Auditor shall audit the same, and on his warrant the Treasurer of State shall pay the same, out of any money appropriated for agricultural purposes.

SEC. 10. All laws conflicting with the provisions of this act, be, and the same are hereby repealed.

At the January meeting 1870, the Constitution was so amended as to strike out that portion of Article 8 which reads: "Employ the necessary police, gate keepers, and care-takers generally," and added: "The members of the Board shall employ all the necessary police and gate keepers."

At the same meeting Article 10 was so amended to read as follows: "That at the annual meeting of said Board the salaries of the Treasurer, Secretary and Superintendent shall be fixed for the ensuing year; *Provided*, that said

Board may, in their discretion, at any meeting of said Board, make said officers an additional allowance for *extra* services."

At the May meeting in 1851, certain rules, embracing ten sections, for the government of county agricultural societies, were adopted by the Board of Agriculture, as required in section 1 of the statute laws enacted by the Legislature of Indiana, for the "Encouragement of Agriculture," approved February 17, 1852.

At the February meeting of 1868, the rules were found inexpedient and repealed, and the following resolutions submitted by the Committee on Rules and Regulations were adopted :

*Resolved*, That all county and district societies shall be organized and governed by the laws of the State of Indiana in regard to agricultural societies, and especially under the act passed by the Legislature and approved February 17, 1852.

*Resolved*, That all societies so organized will be entitled to send delegates to this Board, (State Board of Agriculture), at its annual meetings, and will be received and acknowledged upon the presentation of their reports and credentials and compliance with the laws as legally organized societies.

## EXEMPT FROM TAXATION.

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OFFICE OF ATTORNEY GENERAL,  
INDIANAPOLIS, June 25, 1874.

*Hon. Thos. A. Hendricks,*  
*Governor of Indiana :*

SIR :—Yours enclosing a communication addressed to you by Alexander Heron, Esq., Secretary of the State Board of Agriculture, in which he submits the question whether the property held by the Board in the city of Indianapolis is exempt from taxation under a provision of the act approved March 3, 1865, as affected by the general law approved December 21, 1872, is before me. The Indiana State Board of Agriculture was created by the act of February 14, 1851, (acts 1851, pp. 6 to 9). It is to all intents and purposes a State institution, created for the purpose of advancing the great agricultural interests of the State. The officers are required by law to make reports to the Legislature, etc. The third section of the act of 1865, (1 G. & H. p. 7), provides that the real and personal estate of said Board shall be exempt from taxation. The section also requires the county of Marion and the State to refund to the Board the taxes collected during the years 1862, 1863 and 1864. The first section authorized the Board to purchase not exceeding eighty acres of land for the purpose of holding State fairs and other uses of the Board. The seventh section of the act of December 21, 1872, (acts 1872, p. 58), provides, that the following among other property shall be exempted from taxation, viz.: The property of the United States and of this State. The State con-

tributes \$1,500 per annum to the support of the State Board of Agriculture. The statute of 1865, above referred to, exempting the property from taxation, is not repealed by any provision in 1872. The general repealing clause only repeals such acts as are in conflict with its provisions, and there is no provision in the act of 1872 conflicting with the provisions of the act of 1865. The act of 1872 provides that certain property therein named shall be exempt from taxation. But does this provision by implication exclude from exemption such property as was by express provision of law exempt from taxation at the time it was passed? It would seem clear that it does not. I, therefore, conclude that the property in question can not be taxed for State, county or city purposes for the reasons given.

Yours respectfully,

J. C. DENNY,

Attorney General.





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